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VOL. XIX.

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TRANSACTIONS

OF THE

OBSTETRICAL SOCIETY

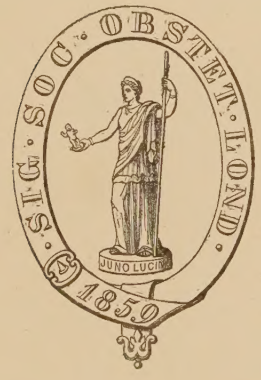
OF

LONDON.

VOL. XIX.

FOR THE YEAR 1877.

WITH A LIST OF OFFICERS, FELLOWS, ETC.



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LONGMANS, GREEN, AND CO.
1878.

PRINTED BY J. E. ADLARD, BARTHOLOMEW CLOSE.

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BRITISH SUBJECTS.

Elected

1862 CHURCHILL, FLEETWOOD, M.D., Professor of Midwifery, King's and Queen's College of Physicians, Ireland; Ardtrea Rectory, Stewart's Town, late of 15, Stephen's green north, Dublin. [3, Harcourt street, Dublin.]

1862 MCCLINTOCK, ALFRED H., M.D., late Master of the Lying-in Hospital; 21, Merrion square, Dublin.

1862 DUNCAN, JAMES MATTHEWS, M.D., A.M., F.R.S. Ed., Physician-Accoucheur to and Lecturer on Midwifery and Diseases of Women and Children at St. Bartholomew's Hospital; 71, Brook street, Grosvenor square, W. *Council*, 1878.

1870 FARRE, ARTHUR, M.D., F.R.S. (HON. PRES.), Physician-Accoucheur to H.R.H. the Princess of Wales; 18, Albert Mansions, Victoria street, Westminster.

1871 KEILLER, ALEXANDER, M.D., F.R.S. Ed., Physician to the Royal Maternity Hospital, Lecturer on Midwifery and Diseases of Women and Children at Surgeons' Hall, Edinburgh; 21, Queen Street, Edinburgh.

Elected

1871 KIDD, GEORGE H., M.D., F.R.C.S.I., Obstetrical Surgeon to the Coombe Lying-in Hospital, and Examiner in Midwifery at the Queen's University and Royal College of Surgeons of Ireland; 30, Merrion square south, Dublin.

1870 WEST, CHARLES, M.D., F.R.C.P. (PRESIDENT), Corresponding Member of the Academy of Medicine of Paris; 61, Wimpole street, Cavendish square. *Pres.* 1877-8.

FOREIGN SUBJECTS.

1872 BARKER, FORDYCE, M.D., Professor of Clinical Midwifery and Diseases of Women at the Bellevue Hospital Medical College, and Obstetric Physician to the Bellevue Hospital; Consulting Physician to the New York State Woman's Hospital, &c.; 85, Madison avenue, New York.

1863 BRAUN, CARL, M.D., Professor of Midwifery, Vienna.

1875 COURTY, AMEDÉE, M.D., Clinical Professor at the Faculty of Medicine of Montpellier.

1863 DEPAUL, JEAN ANNE HENRI, M.D., Professor of Clinical Midwifery, Paris.

1863 FAYE, F. C., M.D., Professor of Midwifery in the University of Christiania.

1864 HECKER, C., Von, M.D., Munich.

1866 HUGENBERGER, THEODOR, M.D., à la Maternité et aux Enfants Trouvés Hôpital des Accouchements, Moscow.

1866 LAZAREWITCH, J., M.D., Kharkoff, Russia.

1864 PAJOT, CH., M.D., Professor of Midwifery to the Faculty of Medicine, Paris.

1877 PEASLEE, E. RANDOLPH, A.M., M.D., Professor of Midwifery, New York.

1866 RIZZOLI, FRANCESCO, M.D., Bologna.

1862 SCANZONI, F. W. VON, M.D., Professor of Midwifery, Würzburg.

Elected

1864 Sims, J. Marion, M.D., late Surgeon to the Women's Hospital, New York.

1872 Spiegelberg, Otto, M.D., Professor of Clinical Midwifery, and Director of the Gynæcological Clinique in Breslau.

1877 Stoltz, Professor, M.D., Nancy.

1866 Thomas, Abraham Everard Simon, M.D., Leyden.

1872 Thomas, T. Gaillard, M.D., Professor of Obstetrics in the College of Physicians and Surgeons, New York.

1862 Virchow, Rudolf, M.D., Professor of Pathological Anatomy in the University of Berlin.

CORRESPONDING FELLOWS.

1873 Martin, A. E., M.D., Berlin.

1876 Budin, P., M.D., Paris.

1876 Chadwick, James R., M.A., M.D., Physician for Diseases of Women, Boston City Hospital; Clarendon street, Boston, Massachusetts, U.S.

1877 Goodell, William, M.D., Philadelphia, Penns.

1876 Lusk, William J., M.D., Professor of Obstetrics, Bellevue Hospital Medical College; New York.

1876 Prevôt, Oscar, M.D., Moscow.

1877 Storer, Horatio, M.D., Boston, Mass.

ORDINARY FELLOWS.

JANUARY, 1878.

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The letters O.F. are prefixed to the names of the "Original Fellows" of the Society.

Elected

1874 ADAM, A. MERCER, M.D., The Churchyard, Boston, Lincolnshire.

1869 ADAMS, THOMAS RUTHERFORD, M.D., Surgeon to the Croydon General Hospital; Stamford House, St. James's road, West Croydon, S.

1859 ALDERSEY, William Hugh, M.B. Lond., F.R.C.S., South Hayling Island, Havant, Hants.

1871 ALDERSON, FREDERICK H., Southerton House, Dartmouth Road, Hammersmith.

1861 ALDRIDGE, JOHN PETTY, M.D., Shirley House, Dorchester.

1873 ALLEN, HENRY MARCUS, M.R.C.P. Ed., 38, Regency square, Brighton.

1876 ALLEN, MORGAN HENRY LAWRENCE, Wellington House, St. John's Wood.

1859 AMSDEN, GEORGE JOHN, M.D., Wynters, Widford, near Ware, Herts.

1875 ANDERSON, JOHN FORD, M.D., C.M., 28, Buckland crescent, Belsize park, N.W.

1866 ANDREWS, HENRY CHARLES, M.D., 1, Oakley square, N.W.

1859 ANDREWS, JAMES, M.D., 149, Camden road, N.W.

1870 APPLETON, ROBERT CARLISLE, Toll Garel, Beverley.

1859 ARCHER, JOHN, F.R.C.S., 9, Carpenter road, Edgbaston, Birmingham.

Elected

1871 Argles, Frank, L.R.C.P. Ed., Hermon Lodge, Wanstead, Essex, N.E.

1861 Armstrong, John, M.D., Green street green, Dartford, Kent.

O.F. Aveling, James H., M.D., Physician to the Chelsea Hospital for Women; 1, Upper Wimpole Street, W. *Council*, 1865-66, 1872. *Hon. Sec.* 1873. *Hon. Lib.* 1874-6. *Vice-Pres.* 1877-8.

1872 Ayling, Arthur H. W., 103, Great Portland street, W.

1859 Ayling, William Henry, L.R.C.P. Ed., 103, Great Portland street, W.

1873 Bailey, James Johnson, M.D., L.R.C.P. Ed., Marple, Cheshire.

1875 Bailey, Thomas, Godstone, Surrey.

1877 Baker, Albert de Winter, Dawlish, Devon.

1864 Baker, G. Benson, 40, Hoghton street, Southport, Lancashire.

1867 Baker, John C., M.D., F.R.C.S. Ed.; 6, Gambier terrace, Hope street, Liverpool.

1876 Baker, John Penning, 6, York place, Portman square, W.

1859 Baker, John Wright, Surgeon to the Derbyshire General Infirmary; 102, Friar gate, Derby. *Hon. Local Sec.*

O.F. Bannister, John Henry, 436, Oxford street, W.

1869 Bantock, George Granville, M.D., Surgeon to the Samaritan Free Hospital; 44, Cornwall road, Westbourne park, W. *Council*, 1874-6.

1874 Barber, Edward, 105, Devonshire street, Sheffield.

1874 Barclay, John, M.D., 10, Low street, Banff.

1877 Barfus, George Aylmer, M.D., Montreal, Canada.

O.F. Barnes, Robert, M.D., F.R.C.P., Obstetric Physician to, and Lecturer on Midwifery at, St. George's Hospital; 31, Grosvenor street, W. *Vice-Pres.* 1859-60. *Council*, 1861-62, 1867-76. *Treas.* 1863-64. *Pres.* 1865-66. *Trustee.*

Elected

1875 Barnes, R. S. Fancourt, M.B., Physician to the British Lying-in Hospital; Physician for Diseases of Women to the St. George's and St. James's Dispensary; 39, Weymouth street, Portland place, W.

1877 Barnes, Thomas Henry, M.D., Lynton Villa, St. James's road, Croydon, S.

1863 Barratt, Joseph G., M.D., 8, Cleveland gardens, Bayswater, W.

1861* Bartrum, John S., F.R.C.S., Surgeon to the Bath General Hospital; 41, Gay street, Bath. *Hon. Loc. Sec. Council*, 1877-8.

1866 Bassett, John, M.D., Professor of Midwifery at the Queen's College, Birmingham; 144, Hockley Hill, Birmingham. *Council*, 1874-6.

1873 Bate, George P., L.R.C.P. Ed., 412, Bethnal Green road, E; and 2, Northumberland House, King Edward's road, Hackney.

1859 Bateman, Henry, F.R.C.S., 13, Canonbury lane, Islington, N.

1867 Batten, Rayner W., M.D., Physician to the Gloucester General Infirmary; 1, Brunswick square, Gloucester. *Hon. Loc. Sec.*

1859 Battye, Richard F., M.R.C.P. Ed., 6, Gloucester street, Belgrave road, Pimlico, S.W.

1871 Beach, Fletcher, M.B., Clapton Asylum for Idiots, Lower Clapton, N.E.

1871 Beadles, Arthur, Park House, 11, Park road terrace, Forest hill, S.E.

1876 Beck, Joseph Reinmund, M.D., 54, Calhoun street, Fort Wayne, Indiana, U.S.

1868 Beigel, Hermann, M.D., 2, Lichtenstein Strasse, Vienna.

1866 Belcher, Henry, M.D., L.R.C.P. Ed.; 12, Pavilion parade, Brighton.

1871 Bell, Robert, M.D. Glasg., 29, Lynedoch street, Glasgow.

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1873* Bennet, James Henry, M.D., The Ferns, Weybridge, and Mentone.

O.F. Berry, Samuel, F.R.C.S., Consulting Surgeon-Accoucheur to the Queen's Hospital, and Professor of Midwifery and the Diseases of Women and Children in the Queen's College; Hatfield House, 281, Hagley road, Edgbaston, Birmingham. *Vice-Pres.* 1859. *Hon. Loc. Sec.*

1868 Black, James Watt, M.D., Obstetric Physician to the Charing Cross Hospital; 15, Clarges street, Piccadilly, W. *Council*, 1872-4.

1874 Blair, William, M.D., 9, Abbey green, Jedburgh.

1861* Blake, Thomas William, Hurstbourne Tarrant, Andover, Hants.

1872 Bland, George, Surgeon to the Macclesfield Infirmary; Park Green, Macclesfield.

1866 Blease, Thomas, Clairville, Altrincham, Cheshire.

1860 Blood, Michael, 3, Boyne terrace, St. Helier's, Jersey.

O.F. Bloxam, William, M.D., 21, Mount street, Grosvenor square, W. *Council*, 1875.

1874 Boddaert, Gustav, M.D., Surgeon to the Civil Hospital, and to the Lunatic Asylum, Ghent, Belgium.

1868 Boggs, Alexander, M.D., late of H.M.'s Madras Army, 362, Rue St. Honoré, Paris.

1872 Bosworth, John Routledge, Sutton, Surrey.

1866 Boulton, Percy, M.D., Physician for Out-patients to the Samaritan Free Hospital; 6, Seymour street, Portman square, W. *Council*, 1878.

1877 Bowkett, Thomas Edward, 239, East India Road, Poplar, E.

1869 Boyd, Herbert, Assistant-Surgeon, Indian Army, Fort William, Calcutta [agents, Henry S. King and Co., 65, Cornhill].

Elected

1877 Bozeman, Nathan, M.D., 296, Fifth Avenue, New York.

1872 Bracey, Charles J., M.B., 71, Hagley road, Edgbaston, Birmingham.

1877 Bradley, Michael McWilliams, M.B., Jarrow-on-Tyne.

1873 Braithwaite, James, M.D., Lecturer on Midwifery and Diseases of Women and Children at the Leeds School of Medicine; Assistant Surgeon to the Leeds Hospital for Women and Children; Little Woodhouse, 16, Clarendon road, Leeds. *Vice-Pres.* 1877-8.

1862 Braithwaite, William, M.D., late Lecturer on Midwifery, Leeds School of Medicine; Clarendon House, 20, Clarendon road, Leeds. *Council,* 1869-70.

1875 Branson, John, Rotherham, Yorkshire.

1875 Brewer, Alexander Hampton, 201, Queen's road, Dalston, E.

1862 Brickwell, John, Sawbridgeworth, Herts.

1872 Bridgewater, Thomas, M.B., Harrow-on-the-Hill, N.W.

1873 Briggs, George Chapman, Harrow-on-the-Hill, N.W.

1864 Bright, John Meaburn, M.D., The Glen, Forest hill, Sydenham, S.E. *Council,* 1873-74.

1869 Brisbane, James, M.D., 30, Lisson grove, N.W.

1871 Brockman, Edward Forster, Assistant-Surgeon, General Hospital, Madras, and Professor of Pathology, Madras Medical College, Madras. [19, Addison Gardens North, Kensington, W.]

1866 Brodie, George B., M.D., 3, Chesterfield street, Mayfair, W. *Council,* 1873-75.

1876 Brookhouse, Charles Turing, M.D., 35, High street, Deptford, S.E.

1868 Brown, Andrew, L.R.C.P. Ed., Elton villa, Bartholomew road, Kentish town, N.W.

1874 Brown, Charles Robert, M.D., Beckville, Beckenham, Kent.

Elected

1865 Brown, D. Dyce, M.D., 29, Seymour Street, Portman square, W.

1866 Brown, George Dransfield, Henley villa, Uxbridge road, Ealing, Middlesex.

1876 Brunjes, Martin, 27, Edgware road, W.

1865 Brunton, John, M.D., M.A., Surgeon to the Royal Maternity Charity; 21, Euston road, N.W. *Council*, 1871-3.

1863 Bryant, Thomas, F.R.C.S., Surgeon to Guy's Hospital; 53, Upper Brook street, W. *Council*, 1866-67.

O.F. Bryant, Walter John, F.R.C.S., M.R.C.P. Ed., 23a, Sussex square, Hyde park gardens, W. *Council*, 1859.

1870 Buck, Joseph Randle, L.R.C.P. Ed., 26, Sidbury, Worcester.

1872 Buckingham, Charles E., M.D., Professor of Obstetrics in Harvard University; Consulting Physician to the Boston Lying-in Hospital; 53, Worcester street, Boston, Massachusetts, U.S.

1871 Bulmer, Thomas Sanderson, M.D. Toronto; Reefton Hospital, Province of Nelson, New Zealand.

1861 Bunny, Joseph, M.D., Hon. Surgeon to the Newbury Dispensary; Northbrook street, Newbury, Berks.

1877 Burchell, Peter Lodowick, M.B., Surgeon-Accoucheur to the City of London Lying-in Hospital; 2, Kingsland road, E.

1877 Burd, Edward, M.D., M.C., Senior Physician to the Salop Infirmary; Newport House, Shrewsbury.

1867 Burnett, Charles, M.B., Biggleswade, Bedfordshire.

1862 Burton, John Moulden, F.R.C.S., Lee park lodge, Lee, Kent, S.E. *Council*, 1868-69.

1864 Butler, Frederick John, M.D., Surgeon to Winchester College and St. Cross Hospital, and to the Hants County Hospital, Winchester. *Hon. Loc. Sec.*

1870 Butler, John M., M.D., Physician to the Royal Kent Dispensary, and to the Woolwich Dispensary; 6, Queen's terrace, (28) Woolwich Common, S.E.

Elected

1868 Butt, William Frederick, L.R.C.P. Lond., 25 Park street, Park lane, W. *Council*, 1876-78.

1861 Candlish, Henry, M.D., Physician to the Alnwick Infirmary, Bondgate street, Alnwick, Northumberland.

1861 Candy, John, M.D., Staff-Surgeon, Army Medical Department. [*Per* Messrs. Price and Boustead, Army Agents, 34, Craven street, Strand, W.C.]

1872 Carless, Edward Nicholls, M.B., C.M., Lansdowne grove, Devizes, Wilts.

1863 Carlyle, David, M.D., 2, The Crescent, Carlisle.

1861 Carter, Albert Pleydell, Wellington House, London road, Gloucester.

1872 Carter, Charles Henry, M.D., Physician to the Hospital for Women; 45, Great Cumberland place, Hyde Park, W.

1877 Carver, Eustace John, Fairlawn, Fulham.

1869 Caskie, John Boyd, M.D., 89, Goswell road, E.C.

1870 Causton, William Henry, Hepworth lodge, 3, Westcroft place, Hammersmith.

1863 Cayzer, Thomas, Mayfield, Aigburth, Liverpool.

1875 Chaffers, Edward, F.R.C.S., 54, North street, Keighley, Yorkshire.

1873 Chalmers, John, M.D., 43, Caledonian road, N.

1864 Chambers, Thomas, F.R.C.P. Ed., F.R.C.S. Ed., Senior Physician to the Chelsea Hospital for Women, Consulting Physician Accoucheur to the Western Maternity; 64, Chester square, S.W. *Council*, 1874-6.

1876 Champneys, Francis Henry, M.A., M.B. Oxon., 11, Wyndham place, Bryanston square, W.

1859 Chance, Edward John, F.R.C.S., Surgeon to the Metropolitan Free Hospital and City Orthopædic Hospital; 59, Old Broad street, City, E.C.

1862 Chapman, Walter, F.R.C.S., Lower Tooting, Surrey.

1867* Charles, T. Edmondstoune, M.D., Professor of Midwifery at the Calcutta Medical College, 10, Harrington street, Calcutta, *Hon. Loc. Sec.*

Elected

1874 Charlesworth, James, 27, Birch terrace, Hanley, Staffordshire.

1865* Charlton, Egbert, M.D.

1863 Chavasse, Pye Henry, F.R.C.S., 214, Hagley road, Edgbaston.

1868 Child, Edwin, New Malden, Kingston-on-Thames, Surrey.

1863* Chisholm, Edwin, Camden, near Sydney, New South Wales. [Per Henry K. Edge, Esq., 16, Philpot lane, E.C.].

1859 Claremont, Claude Clarke, Millbrook House, 1, Hampstead road, N.W.

1859 Clark, James Fenn, 13, Clarendon square, Leamington. *Hon. Loc. Sec.*

1874 Clark, James Henry, L.R.C.P. Ed., Long Hill, Goschen, P. O., St. Elizabeth, Jamaica.

1862 Clarke, John, Lynton, North Devon.

1872 Clarke, William Michell, late Surgeon to the British General Hospital; 2, York buildings, Clifton, Bristol.

O.F. Clay, Charles, M.D., late Lecturer on Midwifery and Clinical Medicine in St. Mary's Hospital, Manchester; Audenshaw Lodge, Audenshaw, near Manchester. *Council*, 1863-65.

1876 Clay, George Langsford, West View, 443, Moseley road, Birmingham.

O.F. Clay, John, Professor of Midwifery, Queen's College, Birmingham; Allan House, 138-9, Steelhouse lane, Birmingham. *Council*, 1868-69. *Vice-Pres.* 1872-4.

O.F. Cleveland, William Frederick, M.D., Stuart villa, 199, Maida vale, W. *Council*, 1863-64. *Vice-Pres.* 1875-77.

1877 Clifton, Nathaniel Henry, F.R.C.S.E., Consulting Surgeon to the Islington Dispensary; 20, Cross Street, Islington, N.

1861 Clogg, Stephen, East Looe, Cornwall.

Elected

1865* Coates, Charles, M.D., Physician to the Bath General and Royal United Hospitals; 10, Circus, Bath.

1860 Cockell, Edgar, Holly lodge, Forest road, Dalston, N.E.

1859 Cockell, Frederick Edgar, 144, Amherst road, Hackney, N.E.

1875 Coffin, Richard Jas. Maitland, M.R.C.P. Ed., 4, Wetherby terrace, Earl's court road, South Kensington, S.W.

1875 Cole, Richard Beverly, M.D. Jefferson Coll. Philad., San Francisco, California, U.S. [*Per* Mr. Henry Perkins, 14, Ampthill square, Regent's park.]

1876 Coleman, Matthew Owen, M.D., 5, Victoria terrace, Surbiton, Surrey.

1877 Colman, Walter Tawell, Hon. Surgeon to the Brighton Hospital for Women; 87, Buckingham road, Brighton.

1873 Concanon, William Augustus, L.K.Q.C.P. Ireland; Ladway Villa, Pill, near Bristol, Somersetshire.

1866 Coombs, James, M.D., Bedford.

1873 Cooper, Frank W., Leytonstone, Essex.

1874 Cooper, Herbert, L.R.C.P. Ed., 3, Rosslyn terrace, Hampstead, N.W.

1861 Cooper, John, M.R.C.P. Ed., Clapham rise, S.W.

1872 Coote, Michael, M.D., 15, Ivanhoe terrace, Ashby-de-la-Zouch.

1865 Copeman, Edward, M.D., Physician to the Norfolk and Norwich Hospital; Upper King street, The Close, Norwich. *Council*, 1869-71. *Vice-Pres.*, 1873-5. *Hon. Loc. Sec.*

1875 Cordes, Aug., M.D., Professor of Obstetrics at the University of Geneva; 60, Rue du Rhone, Geneva.

1866 Cornwall, James, F.R.C.S., Fairford, Gloucestershire.

1860 Corry, Thomas Charles Steuart, M.D., Senior Surgeon to the Belfast General Dispensary; 146, Donegall Pass, Belfast. *Council*, 1867. *Hon. Loc. Sec.*

1859 Cory, Frederick Charles, M.D., Portland villa, Buckhurst hill, Essex. *Council*, 1867-69.

Elected

1875 Cory, Robert, M.B., Assistant Obstetric Physician to St. Thomas's Hospital; Palace road, Albert Embankment, S.E.

1863 Coward, John W., Christchurch, Canterbury, New Zealand [agents: Messrs. Arthur Hill and Sons, 101, Southwark street, S.E.]. *Hon. Loc. Sec.*

1869 Cox, Richard, L.R.C.P. Ed., Theale, near Reading.

1877 Crawford, James, L.K.Q.C.P.I., Ightham, Sevenoaks.

1876 Crew, John, Higham Ferrers, Northamptonshire.

1859 Croft, J. McGrigor A. T., M.D., M.R.C.P., 15, Abbey road, St. John's Wood, N.W.

1866 Croft, Robert Charles, L.R.C.P. Ed., 204, Camden road, N.W.

1874 Crombie, Charles Mann, M.B. & C.M., 9, Union terrace, Aberdeen.

1860 Cross, Richard, M.D., Carlton House, Belmont road, Scarborough, Yorkshire. *Hon. Loc. Sec.*

1869 Cross, Robert Shackleford, Petersfield, Hants.

1867 Croucher, Henry, West Hill, Dartford, Kent.

1876 Croudace, J. H., Assistant Medical Officer, East Riding Asylum, Beverley, Yorkshire.

1875 Cullingworth, Charles James, Surgeon to St. Mary's Hospital, Manchester; 260, Oxford street, Manchester.

1859 Culpeper, William Moe, 1, Brunswick terrace, Palace gardens, Kensington, W.

1862 Cumberbatch, Lawrence Trent, M.D., 25, Cadogan place, Belgrave square, S.W. *Council*, 1868-70. *Vice-Pres.*, 1878.

1875 Cundell, George Richard, Portswood House, Kew.

1867 Cuolahan, Hugh, M.D., 9, Grange road, Bermondsey, S.E.

1859 Curgenven, J. Brendon, 11, Craven hill gardens, Bayswater, W. *Council*, 1870-72.

1868 Daly, Frederick Henry, M.D., 101, Queen's road, Dalston, N.E. *Council*, 1877-8.

1876 Davies, Gomer, L.R.C.P. Ed., 66, Pembridge villas, Bayswater, W.

Elected

O.F. DAVIS, JOHN HALL, M.D., F.R.C.P., Obstetric Physician to, and Lecturer on Midwifery and Diseases of Women and Children at, the Middlesex Hospital; Physician to the Royal Maternity Charity; Consulting Physician-Accoucheur to the St. Pancras Infirmary; 24, Harley street, Cavendish square, W. *Council*, 1859, 1864-65, 1869-76. *Vice-Pres.* 1861-63. *Pres.* 1867-68.

1863 DAVIS, ROBERT ALEX., M.D., Resident Physician, County Asylum, Burntwood, near Lichfield, Stafford.

1873 DAVISON, FRANCIS, L.R.C.P. Ed., Elton, Bury, Lancashire.

1877 DAVSON, SMITH HOUSTON, M.D., 203, Maida Vale, W.

1859 DAY, WILLIAM HENRY, M.D., Physician to the Samaritan Free Hospital for Women and Children; 10, Manchester square, W. *Council*, 1873-75.

1877 DEAN, MARSHALL M. P., M.D., Toronto, Ontario, Canada.

1872 DENTON, GEORGE BAGSTER, Surgeon to the Ladies' Charity and Lying-in Hospital; 2, Abercromby square, Liverpool.

1877 DEWAR, JOHN, L.R.C.P. Ed., 132, Sloane street, S.W.

1860 DICKENSON, JOHN, F.R.C.S., Hon. Surgeon to the Wrexham Infirmary; Wrexham, Denbighshire.

1859 DIXON, JOHN, M.D., Melbourne Lodge, Anerley road, Anerley, S.E.

1877 DONOVAN, JOHN ISLAND, M.D., Ballincollig, Co. Cork.

O.F. DRAGE, CHARLES, M.D., Hatfield, Herts. *Council*, 1861-4.

1875 DREW, WALTER HENRY, M.R.C.P. Ed., 2, Ospringe road, Kentish town, N.W.

1876 DUKE, GEORGE AMOS, 9, Cornwall road, Westbourne road, W.

O.F. DUNCAN, JAMES, M.B., 8, Henrietta street, Covent garden, W.C. *Council*, 1873-74.

1859 DUNCAN, PETER CHARLES, M.D., 7, Hanover street, Hanover square, W.

1871 EASTES, GEORGE, M.B., F.R.C.S., Surgeon-Accoucheur to the Western General Dispensary; 69, Connaught street, Hyde park square, W. *Council*, 1878.

Elected

1866 Easton, John, M.D., 19, Norfolk Crescent, Hyde park, W. *Council*, 1878.

1877 Eddowes, William, The College, Shrewsbury.

1867 Edis, Arthur W., M.D., Assistant-Physician-Accoucheur to the Middlesex Hospital; Physician to the British Lying-in Hospital; 22, Wimpole street, W. *Council*, 1873-74. *Hon. Sec.* 1874-77. *Vice-Pres.* 1878.

1876 Elischer, Julius, M.D., Assistant Physician to the University of Buda-Pest, v. Badgasse 4, Buda-Pest, Hungary.

1862 Ellison, James, M.D., Surgeon to H.M.'s Household, Windsor; 14, High street, Windsor, Berks. *Council*, 1873-75.

1873 Engelmann, George Julius, A.M., M.D., 3003, Locust street, St. Louis, Missouri, U.S.

1873 Evans, Maurice Griffith, M.D., Cardiff.

1871 Evans, Thomas Walter, 101, Heyworth street, Everton, Liverpool.

1875 Ewart, John Henry, Surgeon to St. Mary's Hospital for Women and Children; Limefield House, Cheetham hill, Manchester.

1875 Eyeley, Joseph Frederick, L.R.C.P. Lond., 5, Hill-park crescent, Plymouth.

1865 Fairbank, Thomas, M.D., Surgeon to H.M. the Queen and the Royal Household, Windsor Castle; Moulsey House, Sheet street, Windsor, Berks.

1859 Faircloth, Richard, F.R.C.S., Newmarket, Cambridgeshire.

1876 Farncombe, Richard, 40, Belgrave street, Balsall heath, Birmingham.

1869 Farquhar, William, M.D., Surgeon-Major, Madras Army, Bangalore, Madras Presidency. [24, Pembroke gardens, Kensington.]

1861 Farr, Geo. F., L.R.C.P. Ed., Slade House, 175, Kennington road, S.E.

1868 Fegan, Richard, M.D., 1, Charlton park terrace, Old Charlton, Kent.

Elected

1872 Fergusson, Alexander, M.D., F.R.C.S. Ed., Briarbank, Tweedvale, Peebles, N.B.

1872 Fernie, Henry Mortlock, Park green, Macclesfield, Cheshire.

1861 Fetherston, Gerald H., M.D.; Hon. Physician to the Melbourne Lying-in Hospital, Prahran, Melbourne, Victoria. *Hon. Loc. Sec.*

1873 Finegan, James Herbert, M.D., 48, Rodney street, Liverpool.

1876 Finlay, David W., M.D., 21, Montagu street, Portman square, W.

1870 Fisher, John Moore, M.D., 2, Balmoral terrace, Anlaby road, Hull.

1873 Fitch, Simon, M.A., M.D., Halifax, Nova Scotia.

1874 Fitzrayne, William Allen, 10, Freeschool street, Horselydown, S.E.

1868 Fletcher, Edward, Lygon street, Carlton, Melbourne, Victoria.

1877* Fonmartin, Henry de, M.D., 72, Redesdale street, S.W.

1876 Forbes, Litton, Buckingham Club, 1, Regent street, S.W.

1877* Ford, James, M.D., Eltham, Kent.

1865 Fowler, James, F.S.A., Hon. Surgeon to the Clayton Hospital and Wakefield General Dispensary; 13, South Parade, Wakefield. *Council*, 1872-4. *Hon. Loc. Sec.*

1866 Fox, Cornelius Benjamin, M.D., Medical Officer of Health, Maldon Union Sanitary District, Chelmsford, Essex.

1877 Foxon, Foxon, 231, Brompton road, S.W.

1862 Frain, Joseph, M.D., Hon. Surgeon to the South Shields Dispensary; Frederick street, South Shields.

1861 Frankland, Thomas Thrush, Surgeon to the Ripon Dispensary, North House, Ripon, Yorkshire.

1875 Fraser, Angus, M.D., 232, Union street, Aberdeen.

1874 Fraser, Robert Maclean, L.R.C.P. Ed., 6, North terrace, Northgate, Darlington.

1867 Freeman, Henry W., 24, Circus, Bath.

Elected

1867 Fryer, Charles, L.K.Q.C.P.I.; Sherburn, East Riding, Yorkshire.

1867 Fuller, Charles C., 33, Albany street, Regent's park, N.W.

1874* Galabin, Alfred Lewis, M.A., M.D., Assistant-Physician to the Hospital for Sick Children; Assistant Obstetric Physician to Guy's Hospital; 14, St. Thomas's street, Southwark, S.E. *Council*, 1876-78.

1863 Galton, John H., M.D., Woodside road, Upper Norwood, S.E. *Council*, 1874-6.

1872 Gardner, W., M.A., M.D., 525, St. Joseph street, Montreal.

1863 Garman, Henry Vincent, Kent House, 6, Bow road, E.

1876 Garner, John, 85, New Hall street, Birmingham.

1873 Garton, William, M.B., F.R.C.S., Hardshaw street, St. Helen's, Lancashire.

1859 Gaskoin, George, 7, Westbourne park, W. *Council*, 1870-72.

1875 Gawith, J. Jackson, 23, Westbourne park terrace, W.

1869 Geikie, Walter B., M.D., F.R.C.S. Ed., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the University of Trinity College, Toronto, Ontario, Canada.

1877 Gell, Thomas Silvester, M.D., St. John's Lodge, Kensal green, W.

1859 Gervis, Henry, M.D., F.R.C.P., Obstetric Physician to, and Lecturer upon Obstetric Medicine at, St. Thomas's Hospital; Physician to the Royal Maternity Charity; 13, St. Thomas's street, Southwark, S.E. *Council*, 1864-66. *Hon. Sec.* 1867-70. *Vice-Pres.* 1871-3. *Treas.* 1878.

1866 Gervis, Frederick Heudebourck, 1, Fellows road, Haverstock hill, N.W. *Council*, 1877-8.

1875 Gibbings, Alfred Thomas, M.D., 93, Richmond road, Dalston, N.E.

1874 Gibson, James Edward, Bath road, West Cowes, Isle of Wight.

1866 Giddings, William Kitto, L.R.C.P. Ed., Shaftesbury House, Calverley, near Leeds, Yorkshire.

Elected

1877 Giffard, Douglas William, 44, Old Steyne, Brighton.

1875 Giles, Peter Broome, L.R.C.P. Ed., Staunton-on-Wye, Hereford.

1876 Gill, John, M.D., L.R.C.P. Ed., Newton Abbot, Devon.

1869 Gill, William, L.R.C.P. Lond., 11, Russell square, W.C.

1867 Gittins, John, L.R.C.P. Ed., St. Olave's Union, Parish street, Southwark, 134, Tooley street, S.E.

1871 Goddard, Eugene, L.R.C.P. Lond., 27, Pentonville road, N.

1876 Godfray, Alfred Charles, M.B., L.R.C.P. Ed., 45, La Motte street, Jersey.

1877 Godson, Charles, F.R.C.S., Barnet.

1871 Godson, Clement, M.D., C.M., Assistant Physician-Accoucheur to St. Bartholomew's Hospital; Physician to the Samaritan Free Hospital; 8, Upper Brook street, Grosvenor square, W. *Council*, 1876-77. *Hon. Sec.* 1878.

1868 Godwin, Ashton, M.D., 28, Brompton crescent, Brompton, S.W.

1873 Goldsmith, John, M.D., Highworth House, Worthing, Sussex.

1873 Goodchild, Nathaniel, L.R.C.P. Ed., 9, Highgate road, N.W.

1869 Goss, Tregenna Biddulph, 36, The Paragon, Bath.

1875 Gray, James, M.D., 15, Newton terrace, Glasgow.

1874 Greene, William Thomas, M.A., L.K.Q.C.P.I., 218, Old Kent road, S.E.

1863 Griffith, G. de Gorrequer, Physician to the Hospital for Women and Children, Pimlico; Physician-Accoucheur to St. Saviour's Maternity; 9, Lupus street, St. George's square, S.W.

1869 Griffith, John T., M.D., Talfourd House, Camberwell.

1870 Grigg, William Chapman, M.D., Physician to the In-patients, Queen Charlotte's Lying-in Hospital; Assistant Obstetric Physician to the Westminster Hospital; Assistant-Physician to the Victoria Hospital for Children; 6, Curzon street, Mayfair. *Council*, 1875-77.

Elected

O.F. Grimsdale, Thos. F., L.R.C.P. Ed., Consulting Surgeon to the Lying-in Hospital, and late Lecturer on Diseases of Children, &c., at the Royal Infirmary School of Medicine; 29, Rodney street, Liverpool. *Council*, 1861-62. *Vice-Pres.* 1875-76.

1876 Grinfield-Coxwell, John Edward, L.K.Q.C.P.I., 3, Liverpool terrace, Worthing, Sussex.

1876 Groom, Charles Frederic, M.D., 1, Hawley road, N.W.

1877 Grosholz, Frederick Hermann Varley, L.K.Q.C.P.I., Aberdovey, Merionethshire, North Wales.

1876 Groth, Ernst R. G., M.D., 5, Weymouth street, Portland place, W.

1865 Gwyn, George F., Westcroft House, Hammersmith, W.

1876 Habgood, Henry, Sussex House, Bolton road, Eastbourne, Sussex.

1867 Hadaway, James, L.R.C.P. Ed., 47B, Welbeck street, Cavendish square, W.

1876 Hadden, John, M.D., 31, West street, Horncastle, Lincolnshire.

O.F. Hall, Alfred, M.D., Senior Physician to the Brighton Dispensary; Furze Hill House, Furze hill, Brighton. *Council*, 1864-65. *Vice-Pres.* 1866-68. *Hon. Loc. Sec.*

1859 Hall, Frederick, 1, Jermyn street, St. James's, S.W.

1867 Hall, John Henry Wynne, L.R.C.P. Ed., 47, Canterbury road, Kilburn park, N.W.

1871 Hallowes, Frederick B., Redhill, Reigate, Surrey.

1876 Hammond, Charles, 9, George street, Manchester square, W.

1874 Hannan, Francis John, M.B., Avonside, Downton, Wilts.

1860 Hardey, Key, Surgeon to the West City Dispensary; 4, Wardrobe place, Doctors' Commons, E.C.

1872 Harding, William, F.R.C.S., 4, Percy street, Bedford square, W.C.

1877 Hardwicke, William Wright, L.R.C.P. Ed., 1, Westgate, Rotherham.

1877 Harper, Gerald S., St. George's Hospital, Hyde park corner, S.W.

Elected

O.F. Harper, Philip H., F.R.C.S., 30, Cambridge street, Hyde park, W.

O.F. Harrinson, Isaac, F.R.C.S., Castle street, Reading, Berks. *Council*, 1862-65. *Hon. Loc. Sec.*

1862 Harris, Charles, M.D., Northiam, Ashford, Kent.

1871 Harris, Charles James, 11, Kilburn Priory, N.W.

1872 Harris, Henry, M.D., F.R.C.S., Trengweath place, Redruth, Cornwall.

1867 Harris, William H., M.D., Professor of Midwifery in the Madras Medical College, and Superintendent of the Lying-in Hospital, Madras [agent: Mr. H. K. Lewis, Gower street].

1861 Harris, William John, 13, Marine Parade, Worthing. *Hon. Loc. Sec.*

1865 Harvey, Robert, M.D., Civil Surgeon of Bhurtpore, near Agra, India [*viâ* Bombay]. [Per Messrs. Cochran and Anderson, 152, Union street, Aberdeen.]

1873 Hatherly, Henry Reginald, L.R.C.P. Ed., Wellington street, Park side, Nottingham.

1865 Hayes, Hawkesley Roche, Basingstoke, Hants.

1873 Hayes, Thomas Crawford, M.D., Assistant Obstetric Physician to King's College Hospital; 17, Clarges street, Piccadilly, W. *Council*, 1876-78.

1876 Hebblethwaite, James Edward, M.D., Bawtry, Yorkshire.

1867 Hembrough, John William, Ivy cottage, Waltham, Grimsby.

1870 Henderson, Alexander, 2, Meadow Bank place, Rose vale, Partick, Glasgow.

1876 Herman, George Ernest, Assistant Obstetric Physician to the London Hospital, 20, Finsbury square, E.C. *Council*, 1878.

1860 Hess, Augustus, M.D., Physician to the Jews' Hospital, Norwood; 14, Artillery place, Finsbury square, E.C.

O.F. Hewitt, Graily, M.D., F.R.C.P., Professor of Midwifery in University College, London, and Obstetric Physician to University College Hospital; 36, Berkeley square, W. *Hon. Sec.* 1859-64. *Treas.* 1865-66. *Vice-Pres.* 1867-68. *Pres.* 1869-70. *Council*, 1871-76.

Elected

1862 Hewitt, Tom Smith, M.D., Ivy Cottage, Winkfield, Windsor, Berks.

1867 Hickinbotham, James, L.R.C.P. Ed., 10, Nechells park road, Birmingham.

1876 Hicks, Edward John W., M.B., C.M., 24, George street, Hanover square, W.

1860 Hicks, John Braxton, M.D., F.R.C.P., F.R.S., Physician-Accoucheur to, and Lecturer on Midwifery and the Diseases of Women and Children at, Guy's Hospital; 24, George street, Hanover square. *Council*, 1861-2, 1869, 1873-76. *Hon. Sec.* 1863-65. *Vice-Pres.* 1866-68. *Treas.* 1870. *Pres.* 1871-2.

1860 Higgs, Thomas Frederic, L.R.C.P. Ed., 194, High street, Dudley, Worcestershire.

1872 Hilliard, Robert Harvey, M.D., 5, Belgrave terrace, Upper Holloway, N.

1868 Hime, Thomas Whiteside, M.B., 217, Glossop road, Sheffield.

1876 Hoar, William, Maidstone.

1865 Hodder, Edward M., M.D., F.R.C.S, Professor of Obstetrics, &c., Trinity College, Toronto; Consulting Surgeon, Toronto General Hospital; and Senior Physician-Accoucheur to the Burnside Lying-in Hospital; Toronto, Canada West. *Hon. Loc. Sec.*

O.F. Hodges, Richard, M.D., F.R.C.S., 16, Orchard street, Portman square, W.

1864 Hoffmeister, William Carter, M.D., Surgeon to the Queen in the Isle of Wight; Clifton House, Cowes, Isle of Wight. *Council*, 1877-8.

1874 Hoggan, George, M.B., 7, Trevor terrace, Rutland gate, S.W.

1876 Holden, J. Sinclair, M.D., Sudbury, Suffolk.

1876 Holland, Neville, Hadwen House, Victoria road, Kilburn, N.W.

Elected

1875 Hollings, Edwin, L.R.C.P. Ed., 36, Euston square, N.W.

1859 Holman, Constantine, M.D., Barons, Reigate, Surrey. *Council*, 1867-69. *Vice-Pres.* 1870-71.

1860 Holman, Henry Martin, M.D., Hurstpierpoint, Sussex.

1864 Hood, Wharton Peter, M.D., 65, Upper Berkeley street, Portman square, W.

1872 Hope, William, M.D., Physician to Queen Charlotte's Lying-in Hospital; 5, Bolton row, Mayfair, W. *Council*, 1877-8.

1874 Hopkins, Alfred Boyd, 180, Shoreditch, E.

1876 Horsman, Godfrey Charles, 22, King street, Portman square, W.

1861 Horton, George Edward, Castle street, Dudley, Worcestershire.

1864 Houghton, Henry George, L.K.Q.C.P. Ireland; 6, Mount street, Grosvenor square, W.

1877 Howell, Horace Sydney, M.D, 11, Boundary road, St. John's Wood, N.W.

1876 Hue, Jude, M.D., 15, Rue Jeanne d'Arc, Rouen, France.

1859 Hutchinson, Jonathan, F.R.C.S., Surgeon to the London Hospital; 15, Cavendish square, W. *Council*, 1869-71.

1861 Hutton, Charles, M.D., Physician to the General Lying-in Hospital; 26, Lowndes street, Belgrave square, S.W.

1877 Ilott, James John, L.R.C.P. Ed., Resident Medical Officer, Whitechapel Union Infirmary, Baker's row, E.

1876 Irwin, John Arthur, M.A., M.D., Brooks's Bar, Manchester.

1864 Jackson, Edward, M.B., Surgeon to the Sheffield Hospital for Women; Fern Bank, Glossop road, Sheffield. *Hon. Loc. Sec.*

1864 Jackson, Robert, M.D., 53, Notting hill square, W.

1876 Jakins, Isaac Negus, 32, Osnaburgh street, Regent's park, N.W.

Elected

1873 JAKINS, WILLIAM VOSPER, L.R.C.P. Ed., Sturt street, Ballarat, Victoria. [Per Isaac N. Jakins, Esq., 32, Osnaburgh street, Regent's park.]

1872 JALLAND, ROBERT, Horncastle, Lincolnshire.

1877 JAMES, ARTHUR CULVER, M.D., 11, Marloes road, South Kensington.

1872 JAMES, EDWIN MATTHEWS, Surgeon to the Melbourne Hospital, Victoria; 169, Collins street east, Melbourne.

1877 JAMIESON, PATRICK, M.A., 3, St. Peter's street, Peterhead, Aberdeenshire.

1862 JAY, FREDERICK FITZHERBERT.

1877 JENKS, EDWARD W., M.D., 84, L. Avenue, Detroit, Michigan, U.S.

1859 JENNINGS, JOSEPH C. S., Abbey House, Malmesbury, Wilts.

1876 JOHNSON, CHARLES HENRY, 18, Westbourne place, Eaton square, S.W.

1877 JOHNSON, SAMUEL, M.D., 5, Hill street, Stoke-upon-Trent.

1861 JONES, EDWARD, M.D., 48, Sydenham Park, Kent.

1868 JONES, EVAN, Ty-Mawr, Aberdare, Glamorganshire.

1868 JONES, JOHN, 60, King street, Regent street, W.

1874 JONES, JOHN THOMAS, L.K.Q.C.P. I., 179, Brixton road, S.W.

1876 JONES, LESLIE, M.D., C.M., 3, Brighton parade, Blackpool.

1873 JONES, PHILIP W., Baker street, Enfield, Essex.

1873 JONES, THOMAS EYTON, Surgeon to the Denbigh Infirmary; Grosvenor Lodge, Wrexham.

1870 JONES, WILLIAM, late of Glynneath, Neath, Glamorganshire.

1868 JORDAN, WILLIAM ROSS, Surgeon to the Birmingham Hospital for Women; Manor House, Moseley, near Birmingham.

1875 JUKES, AUGUSTUS, M.B. Trin. Coll. Toronto; St. Catherine's, Ontario.

O.F. KEELE, GEORGE THOMAS, 81, St. Paul's road, Highbury, N.

1874 KEMPSTER, WILLIAM HENRY, L.R.C.P. Ed., Oak House, Bridge Road, Battersea.

Elected

1872 Kennedy, John Edward, M.B., Lecturer on Medical Jurisprudence, Trinity College, Toronto; 242, Richmond street, West Toronto, Canada.

1865* Kernot, George Charles, M.D., 5, Elphinstone road, Hastings, Sussex.

1872 Kerr, Norman S., M.D., F.L.S., 42, Grove road, Regent's park, N.W.

1877 Kerswill, George, Looe, Cornwall.

1877 Kerswill, John Bedford, M.R.C.P. Ed., Fairfield, St. German's, Cornwall.

O.F. Kjallmark, Henry Walter, 66, Prince's square, Westbourne grove, W.

1869 Kingsford, C. Dudley, M.D., Upper Clapton, N.E.

1860 Kingsford, Edward, F.R.C.S., Surgeon to the Sunbury Dispensary; Sunbury, Middlesex.

1862 Kirkpatrick, John Rutherford, M.B. Dubl., Examiner in Midwifery, Royal College of Surgeons, Ireland; 4, Upper Merrion street, Dublin. *Council*, 1872-4.

1872* Kisch, Albert, 46, Portsdown road, Maida hill, W.

1867 Knaggs, Henry Guard, M.D., 189, Camden road, N.W.

1877 Knight, Charles Frederick, 8, Northampton square, Clerkenwell, E.C.

1876 Knott, Charles, L.R.C.P. Ed., Ashford House, Mile End, Portsmouth.

1874 Koch, Edwin L., M.D., Lecturer on Midwifery in the Ceylon Medical School, Columbo, Ceylon.

1872 Konrád, Mark, M.D., The Vienna Hospital, Vienna, Austria; and Gross-Wardein, Hungary.

1876 Lanchester, Henry Thomas, M.D., Park House, Park lane, Croydon, Surrey.

1867 Langford, Charles P., 187, Goswell road, E.C.

O.F. Langmore, John Charles, M.B., F.R.C.S., 20, Oxford terrace, Hyde park, W. *Council*, 1861-64. *Vice-Pres.* 1869-71.

Elected

1866 Langston, Thomas, L.R.C.P. Ed., 29, Broadway, Westminster, S.W.

1862 Lanphier, Richard, M.B. Dubl., Alford, Lincolnshire.

1872 Lattey, James, 23, St. Mary Abbott's terrace, Kensington, W.

1875 Lawrence, Alfred Edward Aust, M.D., Physician-Accoucheur to the Bristol General Hospital; 15, Richmond hill, Clifton, Bristol.

1873 Lawton, Herbert A., Longfleet, Poole, Dorsetshire.

1867 Leaf, Walter, Surgeon to the St. Marylebone General Dispensary; 14, Furnival's Inn, Holborn, E.C.

1875 Lee, Francis Boynton, F.R.C.P. Ed., The Elms, Heckmondwike, Normanton, Yorkshire.

1876 Leighton, Walter Henry, M.D., Lowell, Massachusetts, U.S.

1860 Leishman, William, M.D., Physician to the University Lying-in Hospital, Regius Professor of Midwifery in the University of Glasgow; 11, Woodside crescent, Glasgow. *Council*, 1866-68. *Vice-Pres.* 1869-70.

1872 Leonard, Crosby, Surgeon to the Bristol Royal Infirmary; Rockleigh House, White Ladies road, Clifton, Bristol.

1868 Leslie, William Burnup, M.D., Stonehaven, Kincardineshire.

1874 Lewis, Charles Francis, L.R.C.P. Ed., Bromfield's, Henfield, Sussex.

1874 Lewis, Henry Harman Dendy, 120, Drummond street, Euston square, N.W.

1877 Lewis, John Riggs Miller, M.D., Deputy-Surgeon General, 1, Windsor road, Ealing, W.

1875 Liebman, Carlo, M.D. Vienna, Principal Surgeon, Trieste Civil Hospital, Trieste, Austria.

1876 Lilley, George Herbert, M.D., M.R.C.P., Warwick County Lunatic Asylum, Hatton, Warwick.

1873 Lindsay, W. B., M.D., Strathroy, Ontario, Canada.

Elected

1874 Lithgow, Robert Alexander Douglas, L.R.C.P. Ed., 13, North Brink, Wisbeach, Cambridgeshire.

1868 Llewellyn, Evan, L.R.C.P. Ed., 9, Mount place, London Hospital, E.

1872* Lock, John Griffith, M.A., Lansdowne House, Tenby.

1859 Lombe, Thomas Robert, M.D., Bemerton, Torquay.

1870 Long, Mark, M.D., 185, Amhurst road, Hackney, N.E.

1874 Louttit, James, M.D., Trafalgar road, Greenwich, S.E.

1866 Lovegrove, Charles, M.D., The Oaks, Hythe, Kent.

1872 Lovegrove, James F., Ightham, Sevenoaks, Kent.

1876 Lovett, Henry Albert, Assistant Medical Officer, County and City Lunatic Asylum, Powick, near Worcester.

1862 Lowe, George, F.R.C.S., Burton-on-Trent, Staffordshire.

1866 Lucey, William Cubitt, M.D., Ben Rhydding, near Leeds, Yorkshire.

1873 Lush, William John Henry, L.R.C.P.Ed., Fyfield House, Andover.

1869 Lydall, Wykeham H., L.R.C.P. Ed., 19, Mecklenburgh square, W.C.

1876 Maberly, William Henry, M.B., C.M. Edinb., Arboretum, Leamington.

1871 McCallum, Duncan Campbell, M.D., Professor of Midwifery and Diseases of Women and Children, McGill University; Physician to the University Lying-in Hospital; and Physician to the Montreal General Hospital; Montreal, Canada.

1874 McCallum, John Henry, M.B. Toronto, Resident Physician at the Toronto General Hospital, Canada.

1873 Macdonald, John Alexander, M.D., Woburn, Bedfordshire.

O.F. Mackinder, Draper, M.D., Consulting-Surgeon to the Gainsborough Dispensary; Gainsborough, Lincolnshire. *Council*, 1871-3.

Elected

1877 Maclean, Norman Collier, M.D., 12, Hogarth road, Earl's Court, S.W.

1872 MacMordie, William Kirkpatrick, M.D., 1, College square east, Belfast.

1861 McVeagh, Dennis, L.K.Q.C.P. Ireland, 33, Bishop street, Coventry, Warwickshire.

1866 Maddever, John Coombe, M.D., 19, Battery place, Rothesay.

1859 Madge, Henry M., M.D., 4, Upper Wimpole street, W. *Council*, 1863-65. *Vice-Pres.* 1872-4.

1871 Malins, Edward, M.D., Obstetric Physician to the General Hospital, Birmingham; 8, Old square, Birmingham.

1876 Manby, Frederick Edward, 10, King street, Wolverhampton.

1876 Manders, Horace, St. Mary's Hospital, Paddington, W.

1868 March, Henry Colley, M.D., 2, West street, Rochdale.

1860 Marley, Henry Frederick, Padstow, Cornwall.

1859 Marley, Richard, 100, Trafalgar road, Peckham, S.E.

1862 Marriott, Robert Buchanan, Swaffham, Norfolk.

1876 Marshall, Francis John, Resident Medical Officer to St. George's Hospital.

O.F. Marshall, John Brake, Nightingale road downs, Clapton, N.E.

1871 Martin, Edward, Senior Surgeon to the Weston-super-Mare Hospital; Victoria House, Weston-super-Mare.

1873 Martin, Henry Charrington, M.B., C.M., 11, Somers place, Hyde park, W.

1864 Martin, Lawrence J., M.D., Physician to the Melbourne Lying-in Hospital; 126, Collins street east, Melbourne, Victoria.

1875 Mason, John Wallis, 1, Osnaburgh terrace, Regent's park, W.

Elected

1877 Mason, Samuel Butler, L.R.C.P. Ed., 11, Park terrace, Pontypool, Monmouth.

1877 Maunsell, H. Widenham, A.M., M.D., Melbourne, Australia.

1867 May, Henry, L.R.C.P. Lond., 37, Birchfield road, Aston, Birmingham.

1877 May, Lewis James, 371, Holloway road.

O.F. Meadows, Alfred, M.D., Physician-Accoucheur to, and Lecturer on Midwifery at, St. Mary's Hospital; 27, George street, Hanover square, W. *Council*, 1862-64. *Hon. Sec.* 1865-66. *Hon. Lib.* 1865. *Treas.* 1867-69. *Vice-Pres.* 1874-6.

1875 Miles, Abijah J., M.D., Professor of Diseases of Women and Children in the Cincinnati College of Medicine, Cincinnati, Ohio, U.S.

1871 Miller, Hugh, M.D., Physician-Accoucheur to the Glasgow Maternity Hospital; 298, Bath crescent, Bath street, Glasgow.

1876 Millman, Thomas, M.D., Woodstock, Ontario, Canada.

1876 Milson, Richard Henry, 88, Finchley road, South Hampstead, N.W.

1869 Milward, James, 27, Charles Street, Cardiff.

1869 Minns, Pembroke R. J. B., M.D., Thetford, Norfolk.

1867 Mitchell, Robert Nathal, M.D., 1, Amersham park villas, New Cross, Kent.

1873 Monckton, Marshall, L.F.P.S. Glasg., Calverley parade, Tunbridge Wells.

1877 Moon, Frederick, M.B., Bexley house, Greenwich.

1873 Moon, Robert Henry, F.R.C.S., Fern Lodge, Lower Norwood.

1869 Moore, Joseph, M.D., Counser villa, Balham, S.W.

1859 Moorhead, John, M.D., Surgeon to the Weymouth Infirmary and Dispensary; Weymouth, Dorset.

1863 Morgan, Edward, 15, Park street, Llanelly, Caermarthenshire.

Elected

1871 Morrison, John R., L.R.C.P. Ed., 57, Cannon street road, E.

1875 Morton, Richard John, Aylsham, Norfolk.

1877 Murphy, James, M.D., 3, Borough road terrace, Sunderland.

O.F. Murray, Gustavus Charles P., M.D., Obstetric Physician to the Great Northern Hospital; 66, Great Cumberland place, Hyde park, W. *Council*, 1864-65. *Hon. Sec.* 1866-69. *Vice-Pres.* 1870-72. *Treas.* 1873-77.

1877 Murray, J. Jardine, 99, Montpelier road, Brighton.

O.F. Musgrave, Johnson Thomas, L.R.C.P. Ed., Irlam villa, 39, Finchley road, N.W. *Council*, 1859-60.

1875 Musgrave, Reginald Vernon, St. Mary's Hospital.

1876 Napier, Alex. Disney Leith, M.B., C.M., Fraserburgh, Aberdeenshire.

1859 Napper, Albert, Broad Oak, Cranleigh, Guildford, Surrey. *Council*, 1866-68.

1863 Nason, John James, M.B. Lond., 11, Bridge street, Stratford-on-Avon.

1859 Nason, Richard Bird, Nuneaton, Warwickshire.

1859 Neal, James, M.D., late Hon. Surgeon to the Lying-in Hospital, Birmingham; Barcelona House, Sandown, Isle of Wight.

1866 Neild, James Edward, M.D., Lecturer on Forensic Medicine, Melbourne University; 166, Collins street east, Melbourne.

1876 Nesbitt, Dawson, M.D., 34, Cambridge place, Hyde Park, W.

1876 Newham, James, 16, Princes street, Cavendish square, W.

1859 Newman, William, M.D., Surgeon to the Stamford and Rutland Infirmary; Barn Hill House, Stamford, Lincolnshire. *Council*, 1873-75. *Vice-Pres.* 1876-77.

1872 Niblett, Francis D., L.R.C.P. Ed., The Grove, Hackney, N.

1861 Nichols, George W., Augusta House, Rotherhithe, S.E.

Elected

1873 Nicholson, Arthur, M.B. Lond., 45, Norfolk square, Brighton.

1876 Nix, Edward James, L.R.C.P. Ed., 37, Upper Marylebone street, W.

1876 Oakes, Charles, M.B. and C.M., Oak Villa, Russell road, Leamington.

1868 Oates, Parkinson, M.D., 164, Cambridge street, Eccleston square, S.W.

1876 Ogston, Francis, Junr., M.D., 156, Union street, Aberdeen.

O.F. Oldham, Henry, M.D., F.R.C.P., Consulting Obstetric Physician to Guy's Hospital; 4, Cavendish place, Cavendish square, W. *Vice-Pres.* 1859. *Council,* 1860, 1865-66, 1868-76. *Treas.* 1861-62. *Pres.* 1863-64. *Trustee.*

1859 Oldham, James, F.R.C.S., Consulting-Surgeon to the Brighton Lying-in Institution; 53, Norfolk square, Brighton. *Council,* 1866-68.

1869 Ord, George Rice, Streatham hill, Surrey.

1875 Orpen, Arthur Herbert, A.B., L.K.Q.C.P.S., Springfield, Boswells, Chelmsford.

1877 Osterloh, Paul Rudolph, M.D., Leipzic, Dresden.

1877 Ostlere, Robert, M.B., C.M., 28, Stoke Newington Road, N.

1863 Oswald, James Waddell Jeffries, L.R.C.P. Ed., 245, Kennington road, S.E.

1875 Owen, William, 201, Bethnal green road, E.

1869 Oxley, Martin G. B., L.K.Q.C.P.I., 80, Rodney street, Liverpool.

1859 Palfrey, James, M.D., Obstetric Physician to, and Lecturer on Midwifery and the Diseases of Women and Children at, the London Hospital; Physician to the General Lying-in Hospital; 29, Brook street, Grosvenor square, W.

1877 Palmer, Montagu H. C., London road, Newbury, Berks.

1877 Paramore, Richard, 18, Hunter street, Brunswick square, W.C.

Elected

1873 Parker, Robert William, 8, Old Cavendish street, W.

1867 Parks, John, The Wylde, Bury, Lancashire.

1873 Parks, Luther, A.M., M.D., Boston, United States. [Agents: Messrs. McCalmont Brothers & Co., Bankers, 15, Philpot lane, E.C.]

1872 Parr, George, M.D., 18, Upper Phillimore place, Kensington, W.

1876 Parsons, John Hanbury, M.D., Yorkville, Toronto, Ontario, Canada.

1874 Paterson, Alexander, M.D., Bahia, Brazil [*per* Mr. Walter Greig, 19, Birchin lane, E.C.].

1865* Paterson, James, M.D., Hayburn Bank, Partick, Glasgow.

1875 Paul, Ernest Watson, L.K.Q.C.P.I., Glastonbury and Street, Somerset.

1874 Payne, William S. Hele, 87, Queen's Road, Peckham, S.E.

1864 Pearson, David Ritchie, M.D., 23, Upper Phillimore place, Kensington, W.

1871 Pedler, George Henry, 6, Trevor terrace, Rutland gate, S.W.

O.F. Peirce, Richard King, Surgeon to the Notting hill and Shepherd's Bush Dispensary, 94, Addison road, Kensington, W.

1873 Perez, Diego, M.D., Montevideo, South America [*per* A. K. Mackinnon, Esq., care of Messrs. John Clinch & Sons, 9, Austin Friars, E.C.]

1871 Perrigo, James, M.D., 591, St. Catherine street, Montreal, Canada. *Hon. Loc. Sec.*

1871 Philps, Philip George, 4, Queen's road, Peckham, S.E.

1876 Picard, P. Kirkpatrick, M.D., 59, Abbey road, St. John's Wood, N.W.

1874 Pigg, Thomas, M.D., Physician to the Manchester Southern Hospital for Women and Children; 75 Piccadilly, Manchester.

1876 Piggot, Allen, L.R.C.P. Ed., Bourneville Lodge, Beckenham, Kent.

Elected

1866 PILCHER, WILLIAM JOHN, 43, High street, Boston, Lincolnshire.

1864 PLAYFAIR, W. S., M.D., F.R.C.P., Physician Accoucheur to H.I. & R.H. the Duchess of Edinburgh; Professor of Obstetric Medicine in King's College, and Obstetric Physician to King's College Hospital; 31, George street, Hanover Square, W. *Council*, 1867 *Hon. Librarian*, 1868-9. *Hon. Sec.* 1870-72. *Vice-Pres.*, 1873-5.

O.F.* POLLARD, WILLIAM, Surgeon to the Torbay Hospital; Southlands, Torquay, Devon.

1877 POOLE, S. WORDSWORTH, M.D., Dunedin, Sidcup, Kent.

1876 POPE, H. CAMPBELL, M.B. Lond., Bromsgrove Villa, Gold Hawk road, Shepherd's Bush.

1864 POTTER, JOHN BAPTISTE, M.D., Obstetric Physician to, and Lecturer on Midwifery and the Diseases of Women at, the Westminster Hospital; 20, George street, Hanover square, W. *Council*, 1872-6. *Hon. Lib.* 1877-8.

1859 POUND, GEORGE, Odiham, Hants.

1875 POWDRELL, JOHN, 75, Euston road, N.W.

1863 POWELL, JOSIAH T., M.D., 347, City road, E.C.

1864 PRICE, WILLIAM NICHOLSON, Lecturer on Midwifery and the Diseases of Women and Children at the Leeds School of Medicine; 7, East parade, Leeds. *Council*, 1876-78.

O.F. PRIESTLEY, WILLIAM O., M.D., F.R.C.P., Consulting Obstetric Physician to King's College Hospital; and Consulting Physician-Accoucheur to the St. Marylebone Infirmary; 17, Hertford street, Mayfair, W. *Council*, 1859-61, 1865-66. *Vice-Pres.* 1867-69. *Pres.* 1875-76.

1876 QUIRKE, JOSEPH, L.R.C.P. Ed., The Oaklands, Hunter's lane, Handsworth, Birmingham.

O.F. RADFORD, THOMAS, M.D., Consulting Physician to St. Mary's Hospital, Manchester; Moor field, Higher Broughton, Manchester. *Vice-Pres.* 1859.

1859 RAMSAY, JOHN ALLEN, L.R.C.P. Ed., The Lawn, Great Shelford, Cambridge.

Elected

O.F. Randall, John, M.D., Lecturer on Medical Jurisprudence, St. Mary's Hospital Medical School; Medical Officer, St. Marylebone Infirmary; 35, Nottingham place, W. *Council*, 1877.

1861 Rasch, Adolphus A. F., M.D., Physician for Diseases of Women to the German Hospital; Physician to the Training Hospital, Tottenham; 7, South street, Finsbury square, E.C. *Council*, 1871-3.

1870 Ray, Edward Reynolds, Dulwich.

1860* Rayner, John, M.D., Swaledale House, Quadrant road north, Highbury New Park, N.

1859 Raynes, Henry, Gringley-on-the-hill, Bawtry, Yorkshire.

1877 Read, Arthur Walter, L.R.C.P. Ed., 2, Warwick row, Coventry.

1871 Read, Charles, M.B., 1, St. George's square, Regent's park road, N.W.

1874 Rees, William, Priory House, Queen's Crescent, Haverstock hill, N.W.

1875 Reid, Matthew, L.R.C.P. Ed., 97, Blue Anchor road, Bermondsey, S.E.

O.F. Remington, Thomas, M.D., Visiting Medical Officer to the S. Lambeth and Brixton Dispensary; Alexandra Lodge, 89, Angell road, Brixton, S.W.

1875* Rey, Eugenio, M.D. of Turin, 92, Capole case, Rome.

1862 Richards, David, 72, Park road, Brighton, Sussex.

1859 Richards, Samuel, M.D., 36, Bedford square, W.C. *Council*, 1864-66.

1862 Richards, S. Smith C., 36, Bedford square, W.C.

O.F. Richardson, Richard, L.R.C.P. Ed., Bryngwy, Rhayader, Radnorshire.

1872 Richardson, William L., M.D., A.M., Instructor in Obstetrics in Harvard University; Visiting Physician to the Boston Lying-in Hospital; 76, Boylston street, Boston, Massachusetts, U.S.

1872 Rigden, George, Surgeon to the Canterbury Dispensary; Burgate street, Canterbury.

Elected

1871 RIGDEN, WALTER, 8, Montpellier square, S.W.

O.F.* ROBERTS, DAVID LLOYD, M.D., Physician to St. Mary's Hospital, Manchester; 23, St. John's street, Deansgate, Manchester. *Council*, 1868-70. *Vice-Pres.* 1871-2. *Hon. Loc. Sec.*

1867 ROBERTS, DAVID W., M.D., 56, Manchester street, Manchester square, W.

1860 ROBERTS, ROBERT PRICE, Shamrock House, Rhyl, Flintshire.

1874 ROBERTSON, WILLIAM BORWICK, M.D., West Dulwich, S.E.

O.F. ROBINSON, THOMAS, M.D., 35, Lamb's Conduit street, W.C.

1876 ROE, JOHN WITHINGTON, M.D., Ellesmere, Salop.

1875 ROGERS, AMOS, M.D. Ottawa, L.R.C.P. Ed.; P. O. Box 110, Ottawa, Ontario, Canada.

O.F. ROGERS, WILLIAM RICHARD, M.D., Physician to the Samaritan Free Hospital; 56, Berners street, Oxford street, W. *Council*, 1870-72.

1874 ROOTS, WILLIAM HENRY, Canbury House, Kingston-on-Thames.

1860 ROPER, ALFRED GEORGE, 57, North End, Croydon, Surrey. *Hon. Loc. Sec.*

1874 ROPER, ARTHUR, 17, Granville park, Blackheath.

1865 ROPER, GEORGE, M.D., Physician to the Royal Maternity Charity; Physician to the Hospital for Diseases of Children and Women, Waterloo Bridge road; 6, West street, Finsbury circus, E.C. *Council*, 1875-77.

1859 ROSE, HENRY COOPER, M.D., High street, Hampstead, N.W. *Council*, 1875-77.

O.F. ROUTH, CHARLES HENRY FELIX, M.D., Physician to the Samaritan Free Hospital for Women and Children; 52, Montagu square, W. *Council*, 1859-61. *Vice-Pres.* 1874-6.

1874 ROWAN, THOMAS, L.R.C.P. Ed., Hon. Physician to the Lying-in Hospital, Melbourne, Victoria.

1870 RUSSELL, LOGAN D. H., M.D., 8, Alfred street, Gt. George street, Liverpool.

Elected

1864 Salter, John H., D'Arcy House, Tolleshunt D'Arcy, Kelvedon, Essex.

1875 Salzmann, Frederick William, 18, Montpellier road, Brighton.

1868* Sams, John Sutton, St. Peter's Lodge, Eltham road, Lee, Kent.

1872 Sangster, Charles, 15, Lambeth terrace, S.E.

1875 Satchell, Walter Alfred, F.R.C.P. Ed., Groombridge, near Tunbridge Wells.

1870 Saul, William, M.D., 4, Charlotte street, Fitzroy square, W.

1863 Savage, Henry, M.D., Consulting Physician to the Samaritan Hospital for Women, Lower Seymour street, Portman square; 14, Bentinck street, W. *Council*, 1871-2.

1872 Savage, Thomas, M.D., Surgeon to the Birmingham and Midland Hospital for Women; 12, Old square, Birmingham. *Council*, 1878.

1877 Savory, Charles Tozer, M.D., 1, Douglas road, Canonbury, N.

O.F. Scott, John, F.R.C.S., 49, Harley street, Cavendish square, W. *Council*, 1868-70. *Vice-Pres.* 1871-3.

1870 Scott, John, M.D., New street, Sandwich.

1876 Scovil, Francis S., St. John's, New Brunswick, Canada. [54, St. James street, S.W.]

1863 Sequeira, Henry Little, 1, Jewry street, Aldgate, E.C.

1866 Sequeira, James Scott, 34, Leman street, Goodman's fields, E.

1875 Seton, David Elphinstone, M.D., 12, Thurloe place, South Kensington.

1860 Sewell, Charles Brodie, M.D., 21, Cavendish square W., and 13, Fenchurch street, E.C.

1862 Sharman, Malim, Surgeon to the Birmingham Free Hospital for Sick Children; 18, New Hall street, Birmingham.

Elected

1876 Sharpe, George Metcalfe, Grove House, Hunslet, Leeds.

O.F. Sharpin, Henry Wilson, F.R.C.S., Surgeon to the Bedford General Infirmary, Bedford. *Council*, 1871-3.

1869 Shaw, Henry Sissmore, 88, Upgate, Louth, Lincolnshire.

O.F. Shearman, Edward James, M.D., F.R.C.S., F.R.S. Ed., Consulting Physician to the Rotherham Hospital; Moorgate, Rotherham, Yorkshire.

1859 Sheehy, William Henry, L.R.C.P. Ed., 4, Claremont square, Pentonville, N.

1875 Sheldon, Edwin Mason, Surgeon to Stanley Hospital; 223, Boundary street, Liverpool.

1867 Shepherd, Frederick, L.R.C.P. Ed., 33, King Henry's road, Primrose hill, N.W.

1859 Shipton, William Parker, Consulting Surgeon to the Devonshire Hospital; Buxton, Derbyshire.

1874 Simpson, George Alex. Malcolm, M.D., Hampstead lane, Highgate, N.

1874 Sinclair, Alexander Doull, M.D., late Physician to the Boston City Hospital; 35, Newbury street, Boston, Massachusetts, U.S.

1876 Sirignano, Giosue, M.D., 24, Strada Banchi Nuovi, Napoli.

1874 Skinner, Stephen, M.B., Edgecliffe, Clevedon, Somerset.

1876 Sloan, Samuel, M.D., C.M., 4, Newton terrace, Glasgow.

1861 Sloman, Samuel George, Farnham, Surrey.

1861 Slyman, William Daniel, 26, Caversham road, Kentish Town, N.W.

1860 Smart, Thomas Tovey, L.R.C.P. Ed., South Villa, Bedminster, Bristol.

1859 Smiles, William, M.D., Surgeon to the House of Correction, Cold Bath Fields; 44, Bedford square, W.C.

1877 Smith, Arthur Lapthorn, M.D., Ottawa, Canada.

1876 Smith, Henry Barton Liddell, M.B. and C.M., 29, Charles street, Berkeley square, W.

Elected

1867 Smith, Heywood, M.D., Physician to the Hospital for Women, Soho square, and Physician to the British Lying-in Hospital; 2, Portugal street, Grosvenor square, W. *Council*, 1872-5.

1873 Smith, Joseph, 43, David place, St. Helier's, Jersey.

O.F. Smith, Protheroe, M.D., Physician to the Hospital for Women, Soho square; 42, Park street, Grosvenor square, W.

1875 Smith, Richard Thomas, M.D., Assistant-Physician to the Hospital for Women, Soho square; 21, Haverstock hill, N.W.

1875 Smith, Ernest Louis Tyler, M.A., M.B. Cant., Hounslow.

1859 Smith, William Johnson, M.D., Consulting Physician to the Weymouth Infirmary and Dispensary; Greenhill, Weymouth, Dorset. *Council*, 1869-71.

1876 Snegiereff, Woldemar, M.D., Professor of Gynæcology in the University of Moscow.

1876 Snell, Edmund George Carruthers, 163, Mile End road, E.

1866 Soper, William, Medical Officer, Jews' Hospital, Norwood; 4, Clapham rise [283, Clapham road], S.W.

1869 Spaull, Barnard, F.R.C.S., Essex House, Vale place, Hammersmith, W.

1868 Spaull, Barnard E., 2, Vale place, Hammersmith, W.

1872 Spence, James Beveridge, M.D., Earlswood Asylum, Red Hill, Surrey.

1859 Spencer, George, 8, Kensington park road, Notting hill, W.

1876 Spencer, Lionel Dixon, M.D., Bengal Army [care of Messrs. Grindlay and Co., 55, Parliament street].

1862 Spry, G. Frederick Hume, M.D., Assistant-Surgeon, 2nd Life Guards, Army and Navy Club, S.W.

1876 Spurgin, Frederick William, L.R.C.P. Ed., 14, Henrietta street, Cavendish square, W.

Elected

1876 SPURGIN, HERBERT BRANWHITE, 49, Abington road, Northampton.

1876 SPURRELL, FLAXMAN, L.R.C.P. Ed., Belvedere, Kent.

O.F. SQUIRE, WILLIAM, M.D., M.R.C.P., 6, Orchard street, Portman square, W. *Council*, 1866-68. *Vice-Pres.* 1876-77.

1877 STAINTHORPE, WILLIAM WATERS, M.D., C.M., Wickham Market, Suffolk.

1866 STEELE, ARTHUR BROWNE, L.K.Q.C.P. Ireland, Lecturer on Midwifery, Royal Infirmary School of Medicine; 54, Rodney street, Liverpool. *Council*, 1874-6.

1877 STEPHENSON, WILLIAM, M.D., Professor of Midwifery, University of Aberdeen; 261, Union Street, Aberdeen.

1873 STEWART, JAMES, M.D., 2, Skinner street, Whitby, Yorkshire.

1875* STEWART, WILLIAM, L.R.C.P. Ed., Highfield House, Barnsley, Yorkshire.

1876 STEWART, WILLIAM EDWARD, 16, Harley Street, W.

1859 STONE, JOSEPH, M.D., 175, Upper Brook street, Manchester.

O.F. STOWERS, NOWELL, 125, Kennington park road, Kennington, S.E.

1875 STRANGE, FREDERIC WILLIAM, Langley Lodge, Aurora, Ontario, Canada.

1866 STRANGE, WILLIAM HEATH, M.D., 2, Belsize avenue, Belsize park, N.W.

1871 STURGES, MONTAGUE J., M.D., Elmstone House, Beckenham, Kent.

1862 SUTTON, FIELD FLOWERS, M.D., Balham hill, Clapham, S.W.

1859 SWAYNE, JOSEPH GRIFFITHS, M.D., Physician-Accoucheur to the Bristol General Hospital; Harewood House, 74, Pembroke road, Clifton, Bristol. *Council*, 1860-61, *Vice-Pres.* 1862-64. *Hon. Loc. Sec.*

1859 SYMONDS, FREDERICK, M.A., F.R.C.S., Surgeon to the Radcliffe Infirmary; 35, Beaumont Street, Oxford. *Council*, 1862-65. *Hon. Loc. Sec.*

Elected

1871 TAIT, LAWSON, F.R.C.S., Surgeon to the Birmingham and Midland Hospital for Women; Consulting Surgeon to the West Bromwich Hospital; 7, Great Charles street, Birmingham.

1871 TANNER, JOHN, M.D., F.L.S., Physician for Diseases of Women, to the Farringdon General Dispensary, and Obstetric Physician to the Lying-in Charity, Holborn; Alfred House, Newington Causeway, S.E.

1859 TAPSON, ALFRED JOSEPH, M.B. Lond., 36, Gloucester gardens, Westbourne terrace, W. *Council*, 1862-64.

1863 TAPSON, JOSEPH ALFRED, Surgeon to the Clapham General Dispensary; 83, High street, Clapham, S.W.

1871 TAYLER, FRANCIS F., B.A. Lond., and M.B., Claremont villa, 224, Lewisham road, S.E.

O.F. TAYLOE, EDWARD, South lodge, Clapham common, S.W.

1870 TAYLOR, ARTHUR, M.B., 180, Kennington park road, S.E. [Marton, Province of Wellington, New Zealand.]

O.F. TAYLOR, CHARLES, M.D., Pine house, Camberwell green, S.E. *Council*, 1869-71.

1859 TAYLOR, DAVID, 180, Kennington park road, S.E.

1869 TAYLOR, JOHN, Earl's Colne, Halstead, Essex.

1871 TAYLOR, JOHN W., M.D., 34, Queen street, Scarborough.

1862 TAYLOR, THOMAS, F.R.C.S., Sutton Coldfield, Birmingham. *Council*, 1875-77.

1872 TEMPLE, JAMES ALGERNON, M.D., Lecturer on Midwifery, Trinity College, Toronto.

1862 THANE, GEORGE DANCER, M.D., 15, Montague street, Russell square, W.C.

1870 THOMPSON, JOHN ASHBURTON, M.D., 207, Caledonian road, N. *Council*, 1877-8.

1867 THOMPSON, JOSEPH, 24A, Regent street, Nottingham.

1874 THOMSON, WILLIAM, M.D., Consulting Surgeon, Peterborough Infirmary, Westgate, Peterborough.

Elected

1867 THORBURN, JOHN, M.D., Lecturer on Midwifery, Manchester Royal School of Medicine; 333, Brighton place, Oxford street, Manchester. *Council*, 1876-78.

1860 THORNE, GEORGE LEWORTHY, M.D., 1, Park road, Swanage, Dorset.

1862 THORNTON, WILLIAM HENRY, M.D., Springfield terrace, Dewsbury, Yorkshire [and Bank Lodge, Scarborough].

1867 THORNTON, WILLIAM HENRY, Surgeon to the Royal National Hospital for Scrofula; Berkeley Lodge, Margate.

1874 TICEHURST, AUGUSTUS ROWLAND, Silchester House, Pevensey Road, St. Leonard's-on-Sea.

1873 TICEHURST, CHARLES SAGE, 11, Carlisle Parade, Hastings.

1860 TIFFEN, ROBERT, M.D., Wigton, Cumberland.

1866 TILLEY, SAMUEL, 86, Manor road, Wickham park, New Cross, S.E.

O.F. TILT, EDWARD JOHN, M.D., Consulting Physician-Accoucheur to the Farringdon General Dispensary; 27, Seymour street, Portman square, W. *Council*, 1867-68, 1875-6. *Vice-Pres.* 1869-70. *Treas.* 1871-2. *Pres.* 1873-4.

O.F. TIMES, HENRY G., 23, Manchester street, Manchester square, W.

1872 TOLOTSCHINOFF, N., M.D., Kieff, Russia [*per* M. N. Orloff, 57, Mount street, Grosvenor square, W.].

1869 TOMKINS, CHARLES P., L.K.Q.C.P.I., Beddington park, Croydon.

1870 TOWNE, ALEXANDER, Junr., 364, The Crescent, Kingsland road, N.E.

1876 TREDENNICK, WILLIAM MAGEE, M.D., M. Ch., 51, Warwick road, South Kensington, W.

1872 TRENHOLME, EDWARD HENRY, M.A., M.D., C.M., Professor of Midwifery, University of Bishop's College, Montreal, Canada.

1873 TRESTRAIL, HENRY ERNEST, F.R.C.S., L.R.C.P. Ed., 6, Trinity terrace, Victoria road, Aldershot.

Elected

1872 Tuchmann, Maro, M.D., 148, Adelaide road, Haverstock hill, N.W.

1865 Turner, John Sidney, Surgeon to the Anerley Dispensary, Stanton House, Anerley road, Upper Norwood, Surrey.

1861 Tweed, John James, Junr., F.R.C.S., 14, Upper Brook street, W.

1874 Underhill, Thomas, M.D., Summerfield, West Bromwich, Staffordshire.

1860 Varenne, Ezekiel G., Kelvedon, Essex.

1874 Venn, Albert John, M.D., Senior Assistant Physician, Metropolitan Free Hospital; Assistant Physician, Victoria Hospital for Sick Children; 40, Brook street, Grosvenor square, W.

1877 Verco, Joseph Cooke, M.D., Resident Midwifery Assistant, St. Bartholomew's Hospital.

1873 Verley, Reginald Louis, M.R.C.P. Ed., 88, Gower street, W.C.

1864 Wahltuch, Adolphe, M.D., 280, Oxford street, Manchester.

1860 Wales, Thomas Garneys, Downham Market, Norfolk.

1869 Walker, Alfred, M.D., late Physician to the East London Hospital for Sick Children; Fore street, Hertford. *Hon. Loc. Sec.*

1877 Walker, George, L.R.C.P., M.R.C.S., 1, St. George's place, S.W.

1866 Walker, Thomas James, M.D., Surgeon to the General Infirmary, Peterborough; 18, Westgate, Peterborough. *Hon. Loc. Sec. Council*, 1878.

1873 Walker, Thomas Osborne, Crick, near Rugby, Northamptonshire.

1870 Wallace, Frederick, District Surgeon to the Royal Maternity Charity; 243, Hackney road, N.E.

1872 Wallace, John, M.D., Assistant-Physician to the Liverpool Lying-in Hospital; 4, Canning street, Liverpool. *Hon. Loc. Sec.*

Elected

1872 Waller, Charles Beaumont, Sydenham, S.E.

1875 Waller, Walter Kerr, Kyd street, Calcutta.

1867 Walters, James Hopkins, Faringdon, Berks.

1873 Walters, John, M.B., Church street, Reigate, Surrey.

O.F. Wane, Daniel, M.D., 20, Grafton street, Bond street, W.

1859 Warden, Charles, M.D., Hon. Surgeon to the Birmingham Lying-in Hospital; 39, Temple street, Birmingham.

1874 Warn, Reuben Thomas, 37, Highgate road, N.W.

1862 Watkins, Charles Stewart, 16, King William street, Strand, W.C.

1861 Watts, George Henry, Thatcham, near Newbury, Berks.

1873 Way, John, M.D., 4, Eaton square, S.W.

1867 Webb, Fred. E., 113, Maida vale, W.

O.F. Webb, Henry Speakman, Welwyn, Herts.

1872 Webster, Thomas, Malvern House, Redland, near Bristol.

1876 Weir, Archibald, M.D., St. Mungho's, Great Malvern.

1867 Weller, George, Forest lodge, The Mall, Wanstead, Essex.

1876 Wells, Frank, M.D., Professor of Obstetrics and the Diseases of Women and Children in the Cleveland Medical School, Cleveland, Ohio.

1874 Wells, Harry, M.D., H.B.M. Vice-Consul, Gualeguaychu, Entre Rios, Argentine Confederation.

O.F. Wells, T. Spencer, F.R.C.S., Surgeon in Ordinary to H.M.'s Household; Surgeon to the Samaritan Free Hospital for Women and Children; 3, Upper Grosvenor street, W. *Council*, 1859. *Vice-Pres.* 1868-70. *Trustee.*

1859 Westmacott, John Guise, M.D., Medical Officer to the Paddington Provident Dispensary; 19, St. Mary's terrace, Paddington, W.

1876 Wharton, Henry Thornton, M.A. Oxford, 39, St. George's road, Kilburn, N.W.

1870 Wheatcroft, Samuel Hansom, L.R.C.P. Ed., Stoke Ferry, Brandon, Norfolk.

Elected

1860 WHEELER, DANIEL, Chelmsford, Essex.

1876 WHITE, BARRINGTON SYER, Langham House, Twickenham.

1877 WHITE, EDWARD, M.D., Terrace, Summer hill, Birmingham.

1873 WHITE, FREDERICK BROAD, 15, Maida vale, W.

1860 WHITE, FREDERICK GEORGE, L.R.C.P. Ed., Castle House, Chepstow, Monmouthshire.

O.F. WHITEHEAD, JAMES, M.D., Physician to the Manchester Clinical Hospital; 87, Mosley street, Manchester. *Council*, 1859-61. *Vice-Pres.* 1868-69.

1864 WHITMARSH, WILLIAM MICHAEL, M.D., M.R.C.P. Ed., Surgeon to the Hounslow Lying-in Charity: Albemarle House, Hounslow, Middlesex.

1877 WIGMORE, WILLIAM, 130, Inverness terrace, Hyde park, W.

1867 WILBE, RICHARD HAYDOCK, M.D., York Lodge, 21, Finchley road, St. John's Wood, N.W.

1876 WILKINSON, JOSEPH CRADOCK, 2, Bellevue terrace, Crouch End, Hornsey, N.

1871 WILKINSON, WILLIAM HENRY WHITEWAY, L.R.C.P. Ed., 268, Caledonian Road, Islington, N.

1861 WILLIAMS, ARTHUR WYNN, M.D., Physician to the Samaritan Free Hospital; 1, Montagu square, W. *Council*, 1871.

1864 WILLIAMS, EDWARD, M.D., Holt street House, Wrexham.

1867 WILLIAMS, HENRY LLEWELLYN, M.D., 9, Leonard place, Kensington, W.

1872 WILLIAMS, JOHN, M.D., Assistant-Obstetric Physician to University College Hospital; 28, Harley street, Cavendish square, W. *Council*, 1875-76. *Hon. Sec.* 1877-8.

1859 WILSON, JAMES GEORGE, M.D., Professor of Midwifery in the Andersonian University, Glasgow; Consulting Physician-Accoucheur to the Glasgow Maternity Hospital; 9, Woodside crescent, Glasgow. *Council*, 1863-64. *Vice-Pres.* 1865-67.

Elected

1873 Wilson, John Henry, L.K.Q.C.P. Ireland, Obstetric Physician to the Ladies' Charity and Lying-in Hospital; Kensington Lodge, Kensington, Liverpool.

1860 Wilson, Robert James, F.R.C.P. Ed., 7, Warrior square, St. Leonard's-on-Sea, Sussex. *Hon. Loc. Sec. Vice-Pres.* 1878.

1868 Wilton, John, L.R.C.P. Ed., Chalk Pit House, Sutton, Surrey.

1866 Wiltshire, Alfred, M.D., Joint Lecturer on Midwifery at, and Assistant-Obstetric Physician to, St. Mary's Hospital, and Physician for the Diseases of Women to the West London Hospital; Wimpole street, Cavendish square, W. *Council*, 1870. *Hon. Lib.* 1871-3. *Hon. Sec.* 1874-6. *Vice-Pres.* 1877-8.

1877 Wintle, Henry, M.B., 12, Park road villas, Forest hill, S.E.

1876 Wise, Alfred Thomas Tucker, M.D., 82, Sutherland gardens, Maida vale, W.

1872 Wise, William Clunie, M.D., Gothic villa, 241, Burrage road, Plumstead, S.E.

1860 Wiseman, William Wood, Springstone House, Ossett, near Wakefield, Yorkshire.

1872 Wood, Robert Arthur Henry, 118, Mount Pleasant, Liverpool.

O.F. Worship, J. Lucas, Manor House, Riverhead, Sevenoaks, Kent. *Council*, 1875-77.

1876 Worts, Edwin, 6, Trinity street, Colchester.

1871 Yarrow, George Eugene, M.D., 87, Old street, E.C.

1870 Yeates, George, M.D., Grove road, Walthamstow, Essex.

1874 Young, David, M.D., 13, Via dei Fossi, Florence, Italy.

1861 Young, William Butler, 10, Castle street, Reading, Berks.

1869 Yule, John S. C., Castlefield House, 78, Walmsey road, Bury, Lancashire.

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ADVERTISEMENT.

The Society is not as a body responsible for the facts and opinions which are advanced in the following papers and communications read, or for those contained in the abstracts of the discussions which have occurred, at the meetings during the Session.

OBSTETRICAL SOCIETY

OF

LONDON.

SESSION 1877.

ANNUAL GENERAL MEETING.

JANUARY 3rd, 1877.

WILLIAM OVEREND PRIESTLEY, M.D., F.R.C.P., President, in the Chair.

Present—57 Fellows and 9 visitors.

The ballot for the election of Officers and Council for the year 1877 was declared open till 9 o'clock, and Mr. Carpenter and Mr. Edward J. Hicks were appointed scrutineers.

Books were presented by Dr. John A. Byrne, Dr. H. Pritsch, Dr. George Hoggan, Dr. W. L. Richardson, Dr. O. Spiegelberg, and the New York Academy of Medicine.

The following gentlemen were admitted Fellows of the Society: Morgan H. L. Allen L.S.A., Gomer Davies, L.R.C.P. Ed, John Hadden M.D. (Horncastle), and the following were declared admitted: John Garner, M.R.C.S. (Birmingham), Thomas Millman M.D. (Woodstock,

Ontario), Charles Oakes M.B. (Leamington), Allen Piggot, L.R.C.P., Ed. (Beckenham) and Edmund G. C. Snell L.S.A. (Stepney Green).

The following gentlemen were elected Fellows:—Thomas E. Bowkett, M.R.C.S., Peter L. Burchell, M.B., Douglas W. Giffard M.R.C.S. (Brighton), Charles Godson F.R.C.S. (Barnet), Gerald S. Harper, M.R.C.S., Charles F. Knight, M.R.C.S., P. R. Osterloh, M.D. (Dresden), S. W. Poole, M.D. (Dunedin, Kent), and Charles T. Savory, M.D.

The following gentlemen were proposed for election:—N. H. Clifton F.R.C.S., James Crawford, L.K.Q.C.P.I. (Sevenoaks), Samuel H. Darson, M.D., James Fow, M.D. (Eltham), Samuel Johnson M.D. (Stoke-upon-Trent), George Walker, L.R.C.P.

The following gentlemen were proposed for election as Honorary and Corresponding Fellows:—as *Honorary*, Professor Stoltz, M.D. (Nancy), and Professor E. R. Peaslee, M.D. (New York); as *Corresponding*, William Goodall, M.D. (Philadelphia), and Horatio Storer, M.D. (Boston, Mass.).

REPORT OF THE DELEGATE TO THE PHILADELPHIA MEDICAL CONGRESS.

To the President and Council of the Obstetrical Society.

Dear Sirs,—Having had the privilege and good fortune to represent the Obstetrical Society as its delegate at the Medical Congress held at Philadelphia in September last, it is my duty to present a report of my mission.

Even before my arrival in Philadelphia our American friends had already paid this Society the signal compliment of electing its delegate Chairman of the Obstetrical Section. Thus, within two hours of setting foot in Phila-

delphia, I found myself installed in the chair at the first meeting of the section. The Vice-presidents were Professor Simpson of Edinburgh and Professor Byford of Chicago. I diligently attended for the first three days to the honorable and very agreeable duty assigned to me. Then the urgent desire to see something of the country led me to transfer the chair to my colleagues. The Secretary, Dr. Goodell, is well known to all of us by his admirable writings. I cannot express how much I owe to his rare ability and zeal in helping me through the duties of my office. Without him I should hardly have justified the courtesy of the Congress in inviting a stranger to act as a president.

As to the business itself, it is difficult to express the satisfaction and instruction I derived from the memoirs read, the able and earnest discussions, and the deep interest which kept the largest audiences I have ever seen at similar meetings together from the beginning to the end of the proceedings. There were rarely less than 300 delegates, members, and visitors present. No social attractions, and these were many and tempting, ever prevailed over the earnest devotion to professional work which had drawn by far the greater proportion of the medical men who had thronged to Philadelphia from every part of the United States and Canada.

I think it a matter of interest to call attention to the scheme or design of the business brought before the sections as exemplified in the Obstetric Section. Although there was no obstruction to the full play of scientific freedom in bringing topics before the meetings, still a distinct subject, selected and announced beforehand, was introduced at each meeting. Thus a question of leading interest had been entrusted to some man of recognised ability to set it forth; the leading points of the reporter were stated in the form of propositions; and upon this definite matter discussion was invited. Thus, to take as an example the first day's work, it was set out in the printed programme as follows:

"*First question.* The Causes and the Treatment of Non-Puerperal Hæmorrhages from the Womb. Reporter, William

H. Byford, M.D., Professor of Obstetrics and Diseases of Women and Children in the Chicago Medical College.

"1. A sequential classification approached by showing—
(*a.*) That the uterus is prone to hæmorrhage, because of the conditions connected with menstruation.
(*b.*) That the causes of menorrhagia act by aggravating these conditions.
(*c.*) That these causes sometimes have their origin in the nervous system and sometimes in the vascular.
(*d.*) That of the latter causes some operate by increasing the flow of blood through the uterine vessels, while others effect the same results by retarding the current of blood in them.

"2. The treatment consists—
(*a.*) In removing the causes, and
(*b.*) In surgical, mechanical, and medicinal means to check the flow in great emergencies."

The other leading questions discussed were:

"*Second question.* The Mechanism of Natural and of Artificial Labour in Narrow Pelves. Reporter, William Goodell, M.D., Clinical Professor of Diseases of Women and Children in the University of Pennsylvania.

"*Third question.* The Treatment of Fibroid Tumours of the Uterus. Reporter, Washington L. Atlee, M.D., of Philadelphia.

"*Fourth question.* The Nature, Causes, and Prevention of Puerperal Fever. Reporter, William T. Lusk, M.D., Professor of Obstetrics, &c., in Bellevue Hospital, New York."

An admirable address on Obstetrics was read by Professor Theophilus Parvin of Indianopolis.

It would scarcely be becoming to dwell here upon the many acts of kindness which met me at every step. The warmth of American hospitality is too well known to require to be told by me. The general impression remaining upon my mind is one of doubt as to which country I more especially belong to. It is very true that science binds all

her votaries into one community; but it is also very pleasant to feel that this communion receives a new charm from the tie of personal friendship and kindred sympathy.

I have the honour to be,

Dear sirs,

Your faithful servant,

ROBERT BARNES.

31, Grosvenor Street; 14th Nov., 1876.

ABDOMINAL CYST.

DR. GOMER DAVIES showed a specimen of abdominal cyst in a newly born female child.

Mrs. K—, a multipara, after an ordinary labour, was delivered of a fully developed female child with a very large abdomen, forming, as it were, a cone with the apex at the umbilicus; it lived sixteen hours.

On laying open the abdominal cavity a cyst was seen occupying most of the cavity. On the upper part of the cyst was a protuberance of the size of half a walnut, which on excision proved to be the uterus. Both ovaries and Fallopian tubes could also be traced; the cyst contained about six fluid ounces of a clear fluid, with thick grumous matter at the bottom; no communication could be traced but with the uterus. The kidneys were both encysted. The vagina was impervious, proving that the cyst was formed by a distension of impervious vagina.

Dr. Braxton Hicks and Dr. Aveling were appointed to examine the specimen.

CASE OF TRISMUS NASCENTIUM.

By A. D. L. NAPIER, M.B. C.M. (Fraserburgh, N.B.)

1876, June 9th, 2 p.m.—Called to see Mrs. W. M—'s baby, æt. five days. *History*.—At 10.30 a.m. it was observed

that the baby could not open his mouth to suck. Had a slight fit between eleven and twelve o'clock; since then has lain quiet till now.

Parents both healthy. Mother has had two strong healthy children previously. On the last occasion (4th June) her labour was easy and natural.

On visiting at two o'clock I found the child lying on his back on a nurse's knee; the head was drawn slightly backwards and the body also inclined in the same direction; the mouth was closed, but I succeeded, with some difficulty, in inserting the point of my little finger into it, and in pouring a little milk down the throat. Prescribed bromide and iodide of potassium in gr. j and gr. iss doses to be given every three hours. Revisited at 10.25 p.m. The head was well formed; the thumbs strongly flexed on the palms of the hands, the great toe of the left foot widely separated from the other toes, legs slightly flexed, and forearms flexed on arms; eyes shut. The child started occasionally with a pained expression on his face. Had a fit shortly after my former visit and one "nearly every twenty minutes since." Any attempts made to give fluids or to move the child in the least degree caused another fit. I remained for a short time and had an opportunity afforded me of witnessing the character of the fits. A fit began with foaming at the mouth, and the subsequent predominant symptoms may be thus briefly described. Face and brow greatly congested; great flexion and firm contraction of the toes and fingers, legs and arms; eyes at first slightly opened, towards termination of fit closed. Immediately before and during the fit the respiration was stridulous. On comparing the condition with that at my former visit I found the trismus more marked, but I still managed to insert the point of a teaspoon between the jaws.

Condition of navel.—The cord had separated the day before and the cicatrix was quite healthy. There was no appearance of a scratch or any other external injury; the ventilation of the lying-in chamber was good. "Give medicine, if pos-

sible, every two hours, and apply one leech to back of neck." The child died at 9.30 a.m. on 10th June. I could not obtain permission to make a post-mortem examination.

Remarks.—From the extreme rarity of idiopathic tetanus in private practice, I have ventured to record this case. Trismus nascentium is usually due either to septicæmia, congenital deformities of the head, injury to the fœtal head in parturition, a blow, fall, or prick, on, or to, the head or body of the child, irregular living of the mother, bad ventilation, an unhealthy state of the cord (leading to peritonitis, &c.), exposure of the infant to cold or damp, or lastly, to a costive condition of the bowels. In the case recorded none of these causes could be assigned, and in fact it was quite impossible to determine the etiology. Not many weeks after seeing this case I attended a boy who suffered from traumatic tetanus, caused by an injury to the great toe. In this instance, which ultimately proved fatal, the symptoms were remarkably similar, the only difference being that in the latter case the opisthotonos was greater.

I am aware that tetanus has appeared in children whose mothers had been affected with septicæmia, but though I have seen several cases of maternal septicæmia followed by peritonitic inflammation of the infants, none of my cases shewed any symptom of tetanus. Judging from the analogy of adult to infantile tetanus, it is probable that some nerve lesion (perchance simple pressure of the fœtal brain without evident external injury) is the true origin in most of the dubious cases.

Many remedial agents have been employed, but none have merited much confidence; since hydrate of chloral has been of signal use in some obscure nervous diseases, would it not be justifiable for us to expect it to be of some efficacy in tetanus infantum? Chloroform might also prove useful, were it not so hazardous a remedy for infants; but, till a more definite pathological basis can be laid, our treatment at best can be only empiric.

REPORTS OF TWO CASES OF DEATH IN NEW-BORN INFANTS FROM PYÆMIA, PRODUCED BY PHLEBITIS OF THE UMBILICAL VEIN.

By George Roper, M.D., M.R.C.P.
PHYSICIAN TO THE EASTERN DIVISION OF THE ROYAL MATERNITY CHARITY; PHYSICIAN TO THE ROYAL INFIRMARY FOR CHILDREN AND WOMEN, WATERLOO BRIDGE ROAD.

On the 10th of April, 1876, I was asked by my brother, Mr. Arthur Roper, of Blackheath, to see with him a child which was under his care, suffering from an indurated swelling of the connective tissue of the right arm about the insertion of the deltoid muscle. The child was ten days old, had been healthy from birth, and was suckled. The cord had separated on the fifth day. The skin round the umbilicus had been observed by the nurse to be a little red, but she had paid no particular attention to this, and did not mention it till after the cause of death had been discovered. In three or four days the swelling became soft and extended upwards over the shoulder-joint and clavicle; it fluctuated, and on being lanced discharged a quantity of healthy pus. The child seemed to be in pain at times, but took its nourishment well. The bowels were regular, and there seemed no reason why it should not do well. It, however, gradually became weaker and breathed with difficulty. The abdomen became slightly distended a day or two before its death, which took place when it was nineteen days old, nine days after the swelling of the arm had been first observed.

Dr. Edwin Burrell kindly made a *post-mortem* examination, and reported as follows:—"The body was fairly nourished. No rigor mortis (twenty-two hours after death). Open wound in right arm just below the shoulder, leading to abscess cavity and discharging thin purulent matter. Dry, brown scab over umbilicus. Abdomen distended and tympanitic. Chest resonant on both sides. The abscess in

the arm only involved the subcutaneous connective tissue, but had no distinct wall. Periosteum and bone were healthy, as was the shoulder-joint. *Chest*—no sign of pleurisy; lungs hyperæmic at bases posteriorly, but otherwise healthy; heart healthy. *Abdomen*—cavity contained about half a pint of thin purulent fluid in which were a few flakes of lymph. The peritoneum generally reddened and injected, but there was no deposit of lymph on its surface, with the exception of that covering the liver, on which there was a tolerably thick coating, especially on the upper surface near the anterior margin. The umbilical vein, from the umbilicus to the transverse fissure of the liver, was full of pus, but no thrombus could be found. The phlebitis involved the portal vein for some distance into the liver, as its cut surface, more especially near the centre, exuded pus from the portal vein on pressure. The hepatic vein and inferior cava were healthy in appearance. Kidneys, spleen, and pancreas were healthy. The abdominal swelling was due to distended stomach. The intestines were generally empty.

My brother had been in close attendance on this child throughout its entire illness. Two days before its death he was asked by his friend and neighbour, Dr. Purvis, to assist him in the delivery of a primaparous patient; this he did. He applied forceps and divided the cord, and was present only during the short time occupied in the delivery, and did not see mother or child again. This child died precisely like the one whose case is just reported, the mother afterwards falling a victim to pyæmia. Dr. Purvis has kindly given the following report with permission to publish it:

"E. J. C—, born April 17th, 1876. The mother a primapara, æt. 30; the labour lingering, being finally completed with the aid of forceps. These were very skilfully applied by Mr. Arthur Roper, and no injury was inflicted on either mother or child. The infant progressed favorably for the first week, and the umbilical cord separated naturally at the end of a few days, but the umbilicus did not heal,

At the beginning of the second week the nurse noticed that the right wrist was swollen and tender, and it was at first thought that it had been sprained. The next day, however, the left wrist was similarly affected, and the right presented fluctuation. Then the toes and ankles became red and swollen, and it was evident that the child was suffering from pyæmia. Next the thick part of the right arm was attacked, and pus formed beneath the biceps muscle. On the eleventh day from birth, the whole of the right foot and ankle turned a deep purple colour and became gangrenous. On the following day the gangrene had extended to the hip, and the child died on the fourteenth day of its birth.

"*Post-mortem* (twenty-four hours after death).—The body was that of a well-nourished, healthy infant. There were swellings with fluctuation beneath the biceps of the right arm, in both wrists, and in several of the toes, and the whole of the right leg and thigh was in a state of mortification. On opening the body the whole of the internal organs were healthy. Lungs, heart, liver, kidneys, and intestines, were perfectly normal; no pus anywhere in or about them. On dividing the umbilical vein close to the skin, a few drops of purulent matter could be squeezed out from the cut ends, and on slitting up the vein, it was found to be inflamed and somewhat blackened for about an inch of its length; beyond that point it appeared healthy, and as before observed there was no pus in the liver. The mother previous to the death of the infant had progressed favorably. After that, however, her pulse and temperature rose, and a swelling occurred in the right shoulder, the left shoulder, the ankles, toes, knees, and elbows, and she died on the 17th of June. Throughout her illness there was no metritis, peritonitis, or tympanitis. The abdomen even permitted pummelling without pain, and the uterus, on examination per vaginam, appeared free from adhesions, and was perfectly normal. The perinæum was intact. How the pus found its way into her system is a mystery, as there was no post-mortem examination."

The English text-books on diseases of infancy, so far as I

know, do not mention cases of this kind, and as the Society's 'Transactions' contain no record of such cases, it has been thought desirable to bring them to the notice of the Society. I am not unmindful that they are somewhat fragmentary and incomplete. The Sydenham Society has published the work of Dr. Hasse (translated by Dr. W. E. Swaine, 1846) 'On Diseases of the Organs of Circulation and Respiration,' in which brief mention is made of this disease. After describing phlebitis of the portal vein, he says:—"We have still to advert to the recorded cases of inflammation of the umbilical vein in new-born infants. The symptoms during life were jaundice, vomiting, diarrhœa, and erysipelatous inflammation surrounding the umbilicus. After death all the signs of inflammation were discoverable in the umbilical vein, occasionally extending to the vena portæ, and to the hepatic veins, with more or less diffused peritonitis, and in some instances with the usual secondary changes in other organs that result from the commingling of pus in the blood. It is remarkable that the liver in no instance appeared to be the seat of any such changes." In a note Hasse refers to ten cases—one by Osiander, two by the elder Meckel, five by Dulay, and two by Schöller. In the two cases I have reported there was no jaundice. The order of sequence of these deaths, as regards dates, is—

Death of first infant, April 19th.

Death of second infant, May 1st.

Death of mother of last child, June 17th.

I am not disposed to make any observation on these cases; but I would suggest, for the consideration of the Society, whether some of the cases which are frequently seen in new-born infants of severe strophulus, bullæ, ecthymatous blotches, and other forms of skin trouble, may not be due to a mild form of blood-poisoning originating in suppurative inflammation of the umbilical scar.

CASE OE PYÆMIA WITH EXTENSIVE PURULENT DEPOSITS IN A NEW-BORN INFANT.

By Arthur W. Edis, M.D., &c.,
PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL, ENDELL STREET, ETC.

Mrs. E— was delivered on December 11th of a male child, weighing only 4 lbs. 10 oz. She did not expect to be confined until the middle of January. There was nothing unusual in the course of the labour, which lasted about twelve hours. It was her seventh confinement. The two preceding children had been stillborn. Her husband was markedly consumptive.

At birth the child appeared to be very feeble and blue, and moaned almost incessantly. It took the breast but feebly. It was with difficulty that the child could be kept warm.

About the end of the first week a black, ecchymosed spot appeared at the back of the right shoulder, and a day or two afterwards the right lower leg became hard and brawny over the calf. Matter subsequently formed, and an opening was made into the abscess.

The abdomen became tympanitic, and the skin just around the navel was brawny and tense. Death ensued on the eighth day from inanition, the child not having been able to take the breast from rigidity of the masseter muscles.

At the *post-mortem* the tissues round the umbilicus were found to be much inflamed, the vessels leading up to it being red and plugged with a purulent fibrinous coagulum, easily separable from the walls of the vessels, extending up to the transverse fissure of the liver. The liver itself was healthy and contained no purulent deposits. The whole of the right thigh was infiltrated with serous fluid, pus extending between the sheaths of the muscles. The femoral vein was plugged, and the tissues generally in a sloughy condition. There was also a distinct pyæmic abscess of considerable size in the region of the right shoulder posteriorly,

There were slight traces of localised peritonitis. The inflamed condition of the vessels leading to the umbilicus seemed to be the primary condition, the other purulent collections being secondary, similar to the cases described by Mr. Hutchinson as navel-ill in lambs. No assignable cause was apparent.

During the time that the ballot was proceeding, Dr. WYNN WILLIAMS rose and spoke relative to the legality of electing an Honorary Fellow as President. It was followed by a discussion, at the conclusion of which Dr. Wynn Williams moved the following resolution, which was seconded by Mr. JOHN SCOTT:

"That the election of President be deferred till the question of legality be considered."

An amendment was moved by Dr. LANGMORE, and seconded by Mr. WORSHIP, and carried by a large majority:

"That the Council had considered the interest of the Society in nominating Dr. West."

And at 9 p.m. the Annual Meeting was resumed.

Honorary President.—Arthur Farre, M.D., F.R.S.

President.—Charles West, M.D.

Vice-Presidents.—James H. Aveling, M.D., James Braithwaite, M.D. (Leeds), William Frederick Cleveland, M.D., William Newman, M.D. (Stamford), William Squire, M.D., Alfred Wiltshire, M.D.

Treasurer.—Gustavus C. P. Murray, M.D.

Honorary Secretaries.—Arthur W. Edis, M.D., John Williams, M.D.

Honorary Librarian.—John Baptiste Potter, M.D.

Other Members of Council.—John S. Bartrum, F.R.C.S. (Bath), William Frederick Butt, L.R.C.P., Frederick Henry

Daly, M.D., Alfred Lewis Galabin, M.A., M.D., Frederick Heudebourck Gervis, Clement Godson, M.D., William Chapman Grigg, M.D., Thomas Crawford Hayes, M.D., William Carter Hoffmeister, M.D. (Cowes), William Hope, M.D., William Nicholson Price, M.R.C.S. (Leeds), John Randall, M.D., George Roper, M.D., Henry Cooper Rose, M.D., Thomas Taylor, F.R.C.S. (Birmingham), John Ashburton Thompson, M.D., John Thorburn, M.D. (Manchester), J. Lucas Worship (Sevenoaks).

The audited report of the Treasurer was read, and its receipt and adoption was moved by Dr. Routh, seconded by Dr. Charles Taylor, and carried unanimously. (See page 15.)

The Librarian's report was then read, and its receipt and adoption was moved by Mr. John Scott, seconded by Dr. Galabin, and carried.

Report of Honorary Librarian for 1876.

It is satisfactory to be able to inform the Fellows that the value and usefulness of the Library and Museum gradually increase.

The number of volumes added during the past year is 158, raising the total to 2144. Considerable additions have been made to the museum in preparations, instruments, and casts; and the arrival of Dr. Arthur Farre's collection is soon expected.

The task of stowing away all these treasures is becoming every year more difficult. Temporary shelves are now being put up, and when this is done every available space will have been utilised. The best method of providing increased accomodation has, therefore, become a pressing problem, and one which the Council will before long be compelled to decide.

Before quitting my post I should wish to call the attention

BALANCE-SHEET OF THE OBSTETRICAL SOCIETY OF LONDON.

Abstract of the Receipts and Expenditure for the year ending December 31st, 1876.

RECEIPTS.

1876.	£ s. d.	£ s. d.
Jan.—To balance in hand from balance-sheet for 1875		104 11 10
(1). Subscriptions received during 1876: 610 at £1 1s.		640 10 0
(2). Composition Fees— 2 (Nos. 20 & 21) at £10 10s.		21 0 0
(3). Midwifery Examination Fees		3 8 0
(4). Sale of Transactions, &c.		71 0 6
(5). Interest at 3 per cent.		
Consols, £1381 5s. 9d. Jan.	20 10 11	
„ £1486 11s. 0d. July	22 0 5	
„ „ „	1 11 6	
		44 2 10
(6). Receipt from sale of 3 per cent. Consols, £265 5s.		250 0 0
Amount of stock (3 per cent. Consols) standing in the names of the trustees: Jan, 1876 £1486 11 0		
Sale of stock, June, 1876 265 5 0		
£1221 6 0		
		£1134 13 2

EXPENDITURE.

By	£ s. d.	£ s. d.
(1). Transactions:		
Printing, Lithography, Paper, and Binding, making Index, Donation List, &c., and delivery of Transactions		334 1 9
(2). Library and Museum:		
1. Library, Purchase of Books, Bookbinding, &c.	57 2 3	
2. Rent, Salary, Petty Expenditure, Insurance, &c.	259 7 11	
		316 10 2
(3). Expenses of Meetings, &c.: Meeting-room, Expenses of Meetings, Stationery, Collection of Subscriptions, Postages, Banking Expenses, &c.		116 1 3
(4). Expenses of Conversazione		240 1 11
Balance in hand at Bankers Jan. 1st, 1877		127 18 1
		£1134 13 2

Audited and found correct,

Auditors { T. C. Langmore, M.B.
Fancourt Barnes, M.B.

of my successors to the still unsatisfactory condition of the historical portion of the library. It may be confidently stated that no modern work of repute relating to our branch of medicine is absent from our shelves, but that very useful class of books which cannot find a place in every private library, and without which it is impossible to get up the history of a subject, is still very imperfect. It would, of course, be impossible to find room for more than classical foreign books relating to midwifery and the diseases of women and children, but every work on these subjects written by a British author should be in our possession. Two reasons make the acquisition of old obstetrical books difficult —(1) The sellers of them find a readier market in America than in this country; (2) because our second-hand medical booksellers so seldom publish catalogues. Notwithstanding the permission granted by the Council to buy upon my own responsibility any old obstetric work in English with which I might meet, and which was not already in the library, that privilege has not for the reasons stated been largely used. Future honorary librarians will, I hope, continue to exercise it, and endeavour as far as possible to render the library more complete in historical books. One of the responsibilities of this great Society must necessarily be the conservancy of British obstetric literature, for although the writings of our past obstetricians may, comparatively speaking, be of little value, the love which we feel for our art must extend our sympathies to those who laboured in less light, but who one by one placed the steps upon which we now mount to higher perfection.

James H. Aveling, M.D.,
Honorary Librarian.

The following alteration of the Bye-Laws was then moved from the chair by the President; and carried *nemine contradicente*, "That the trustees of the Society's property for the time being shall, as recommended by the Council, hereafter be *ex officio* members of the Council, and that the

necesssary addition be made in Bye-Law, Chapter 1, Section 4."

The PRESIDENT then delivered the annual address.

ANNUAL ADDRESS.

GENTLEMEN,—To-night we terminate another Session, and mark another year in the age of the Obstetrical Society. The past year has not been uneventful, and several contributions have been brought before the Society of more than passing interest. At the very beginning of the Session Dr. Routh brought before the Society an instance of the removal of a large fibroid tumour of the uterus by abdominal section. The case was interesting in several aspects, and especially so in the way that hyperpyrexia following the operation was successfully controlled by the use of an ice bath. Five days after the operation the temperature rose to 105° or 106°, and other grave symptoms accompanied this increase of temperature. The patient was then placed bodily in an ice bath, and kept in it for three-quarters of an hour, after the plan recommended in cases of acute rheumatism with perilous rise of fever-heat. The temperature sank under this treatment speedily to 100°, and shortly after to 97°, while consciousness returned. A second rise of temperature, a week later, to 104°, was treated in the same way with a like result, and the patient after being tapped by the vagina, and relieved of intensely fœtid pus which had gravitated into the retro-uterine cul-de-sac, eventually recovered. The results which have hitherto attended the attempts to remove fibroid tumours of the uterus by surgical proceeding have not been very encouraging. With the exception of one other successful case by Mr. Bryant in an early volume of the 'Transactions,' I believe Dr. Routh's is the only instance of recovery after

removal of a large uterine fibroid by abdominal section recorded in the 'Transactions' of this Society.

A considerable number of like operations have been undertaken by Dr. Atlee, Dr. H. R. Storer, Mr. Spencer Wells, Professor Koeberle, and others in various parts of the world; but of these more than two-thirds of the patients died—a much larger proportion than after ovariotomy. The treatment of fibroid tumours of the uterus is no doubt one of the problems of the future. Fibroid tumours are more frequent in women than ovarian tumours; but, fortunately, they are in the majority of instances of much slower growth, and attended by less grave symptoms in progress, and the ultimate results are less threatening. By far the largest proportion of fibroids, when once discovered, are most judiciously treated by non-interference surgically. The discomforts may be relieved by appropriate remedies; the hæmorrhage, if occurring, can be controlled by rest and styptics; and a prospect may be afforded that, with the arrival of the climacteric, activity and inconvenience will subside. There are, nevertheless, some cases which are attended with such persistent and alarming hæmorrhage, or with such pain and inconvenience from the bulk or position of the tumour, that the practitioner would be only too glad were it possible to look forward to an operation for its removal with no greater fear of a fatal issue than appears from the latest results of ovariotomy. Enucleation of the tumour by the vagina in all its modifications is a most hazardous proceeding. The large plexuses of veins and the erectile character of the tissues surrounding the womb in the true pelvis eminently predispose to phlebitis, diffuse cellular inflammation, and blood poisoning; so that a simple incision into the cervix is attended with more risk than a similar incision elsewhere, and the danger increases with the magnitude of the operation. The peril is always enchanced by the difficulty experienced in preventing the retention of septic matters in the neighbourhood of the wounded surfaces, and their consequent absorption. A case in illustration of this subject was reported to the Society by Dr. Thomas Chambers.

When improvements in surgery obviate this source of danger to the patient, we may possibly procure more favorable results than heretofore. The history of ovariotomy has taught us that the fears entertained formerly concerning the great sensitiveness of the peritoneum and the danger incurred by wounds of this membrane were greatly exaggerated. It has further taught us that much greater danger is incurred by its contact with septic matter produced by wounds than by exposure to the outer air. In the case of the major proceedings, when we have a choice between the two, the index of experience indeed seems pointing somewhat in favour of abdominal section rather than of an operation per vaginam, as being more manageable in its after-treatment, and giving a better chance of recovery. The experience of Péan, of Koeberle, of Hegar, of Spencer Wells, and others, indicate a distinct advance in this direction. Dr. Thomas Keith, of Edinburgh, one of the wisest and most conservative of modern surgeons, told me recently he believed, when all the details had been as carefully mastered as in ovariotomy, it would become a much less hazardous operation to remove large fibroids by abdominal section, particularly if the cervix uteri could be utilised as a stump, as recommended by M. Péan. Mr. Wells informs me that he has recently removed a pediculated tumour of the uterus by abdominal section from a patient who was bedridden from the discomfort it produced, and that she recovered without any adverse symptom. Such semi-detached tumours are no doubt the most favorable for removal; but commonly they are just those which give the least annoyance and least call for operative interference. It should be remembered that all operations which involve the laying open of the peritoneal cavity rank with the capital operations of external surgery. In their gravity and risk of life they are beset with perils at every step, and they should not be undertaken without very adequate reason.

The discussion which arose on Dr. Meadows's communication concerning the diagnosis of a nulliparous uterus, and the specimens illustrative of the subject exhibited by Drs. Braxton Hicks and Edis, afford sufficient proof, if such proof

were necessary, of the desire which exists to reduce the results of observation to a scientific and precise basis. Investigation has not yet enabled us to speak with any degree of certainty concerning the post-mortem differences which exist between a nulliparous and a multiparous uterus; but the points dwelt upon by the various speakers on this topic deserve the careful attention of the medical jurist in the future. The arching of the fundus of the uterus, the relative size of the organ, and the fissured condition of the cervix, conjoined with other signs, afford only some presumptive evidence of pregnancy, if certain sources of fallacy be guarded against. But if it be true, as asserted by Dr. John Williams, that the condition of the blood-vessels during pregnancy is so changed as to leave a permanent alteration in their walls which may be henceforth recognised on section, a further sign of undoubted importance may be added to the evidence of previous delivery. The same praiseworthy desire to solve some of the scientific problems of gynæcology appeared in the respective contributions of Dr. John Williams, on the "Mechanical Action of Pessaries," and of Dr. Braxton Hicks, on the "Cause of Uterine Displacements."

Two very interesting papers have been contributed during the session by members of the profession who do not practise obstetric medicine, and to whom, therefore, the Society is especially indebted for these additions to its 'Transactions.' Mr. Hutchinson, the distinguished surgeon, has brought foward a series of observations on "Diseases of Sheep incident to Parturition," and on the "Navel Ill in Lambs." These form an interesting contribution to the study of comparative parturition and its diseases. Dr. Langdon Down contributed an admirable paper on the "Obstetrical Aspects of Idiocy." The paper of Dr. Langdon Down, as well as those by Mr. Godson and Dr. Cooper Rose, have brought prominently before the Fellows a question of great practical importance to them in the exercise of their vocation—viz. the frequency with which forceps ought to be employed in ordinary midwifery practice. A sort of revolution may be said to have taken place in the views

entertained by medical practitioners on this subject. At one time the forceps was used but rarely in proportion to the absolute number of deliveries. In 1850 Dr. Churchill computed that the forceps was employed by British practitioners only about once in 362 labours. In France and Germany, at the same time, the forceps was used with more than twice this frequency, and the maternal mortality was considerably higher than in Great Britain, while the number of children saved was only about a half per cent. more. Anterior to that period the short forceps was almost exclusively used. Dr. Collins, who was Master of the Dublin Lying-in Hospital for seven years from 1826, taught that the forceps was quite inapplicable in difficult labour unless the child's ear could be reached with the fingers, showing that he only used short forceps, and this only in the easiest cases. Nearer our own time, Dr. Robert Lee, who had one of the largest consulting midwifery practices in London, and is still living, always objected to the long forceps as a dangerous instrument. The result was a large proportion of craniotomy cases and a sacrifice of infant life which we now believe might have been spared.

With the advance of time, and a more accurate knowledge of the statistics of parturition,—of the dangers which beset both mother and child when pressure is over-prolonged in the maternal passages ; with a better appreciation of the mechanical action of the forceps, and the possession of improved instruments, the forceps has gradually come to be used with greater frequency, and, at the same time, with happier results. Many craniotomy cases have also been avoided by the employment of the long forceps. During Johnson and Sinclair's term of office in the Rotunda Lying-in Hospital, Dublin, the forceps was employed in about one to every sixty deliveries, and some practitioners use it with still greater frequency. Dr. George Johnson, in his Report of the Rotunda Hospital for the year ending November, 1875, states that the forceps was employed about once in every nine cases. These figures, however, only bear on a limited number of deliveries. The danger now is lest the forceps should be used with mis-

chievous recklessness, and without due consideration of all the issues involved. Allusion has been made in debate more than once to the fact that Dr. Hamilton of Falkirk had, mainly from the timely use of the forceps, been able to publish two successive series of cranial deliveries, one of 600 and another of 750, without losing a single child, and the propriety has been mooted of applying the forceps as often as once in every five cases. I am bound to say that, guided by somewhat extended and varied experience in London, in the country, and in a densely-populated manufacturing town where deformity of the pelvis was not infrequent, I can see no valid reason for such constant recourse to instrumental interference. Unfortunately, the effects of suggestions of this kind are not always foreseen in all their consequences. Medical practitioners in town and country are led to believe that because these doctrines are seriously discussed before the Obstetrical Society of London they are the more advanced views of eminent obstetricans on the subject, and, unwilling to be behind their contemporaries in matters of practice, hasten to adopt them. An eminent surgeon recently informed me that he had, within a short time, been called in to repair serious lacerations which had been produced by the use of the forceps, and on inquiry he found that the patients had been only two and four hours respectively in labour from its commencement before instruments were employed, and, so far as he could learn, there had previously been no urgent threatening symptoms.

With our present knowledge I think it may be fully conceded that when the forceps is required, and it is employed by experienced and skilful hands, it will do less harm to the mother than long-continued pressure of the presenting part on the maternal structures; and further, that its timely use may be the means of saving infant life. Excluding the cases in which complications occur, and where for the safety of the mother or child delivery must be completed at the earliest possible period, the difficulty is to know when to interfere in each individual instance. Although we know that danger to both mother and child increases with the duration of labour,

yet it is obvious that time alone cannot be taken into account. One patient may encounter greater peril from severe or continued uterine contraction against rigid structures in two hours than another patient in six hours, and a variety of matters have to be weighed before concluding that instruments are necessary. Obstetric practitioners in remote and isolated localities are, perhaps, not always in the best condition of mind for weighing nicely these various considerations. Wearied by long journeys and night watching, distracted by demands for their services in different places at the same moment, they require all the moral support which authorities can give them in favour of patience and prudence. One who has experience and dexterous hands may have large success from the frequent and unnecessary use of the forceps, but an absence of misadventure by no means proves its necessity. Another, endeavouring to imitate, may produce a series of disasters. One corollary we may deduce from this is that all practitioners in midwifery should be thoroughly instructed in the mechanism of natural and morbid labour, and in the use of instruments. To use the forceps with the greatest dexterity, it is probably best to adhere to one form, and that the long forceps, because it will answer for all forceps cases, and the hands thus grow familiar with its form and curves. The next point is to determine *when* the forceps should be rightly applied in a cranial presentation, and how to strike that just balance between too long a delay on the one hand and too hasty an interference on the other. The rule should be, not as Dr. Collins propounded it in past years, "wait until nature is absolutely exhausted," but "see what nature can effect, and then supply the deficiency." To interfere when all is going on favorably, although it may be slowly, is to do away with all those safeguards, so far at least as the mother is concerned, with which nature has surrounded the parturient process. More especially it is apt to interfere with the full and perfect contraction of the uterus after delivery, and the gradual and progressive dilatation of the maternal canals which tends to prevent their laceration. There is no doubt a safe middle path between the two

extremes of practice. Whenever the head is so arrested in its progress through the pelvis, and there exposed to such pressure as to raise apprehension either for the maternal structures or the child's cerebral circulation, the skilful hand may proceed at once to deliver. When the head lies at the floor of the pelvis and the passages are dilatable, there may be less hesitation in deciding on this course, even when the indications are somewhat doubtful, because the operation is simple and generally easily performed. When the head is arrested at the brim, the operation is more complex and difficult, and greater care must be taken in forming a decision. Especially is this care necessary when the os uteri is imperfectly dilated, because, although experience has taught us that the long forceps may in emergency be applied before the os is fully dilated, it must at least be *dilatable*, or it will oppose obstinate resistance to efforts at traction, and may be severely lacerated.

The history, by Dr. Galabin, of two cases of delivery in which labour was impeded by extensive malignant disease of the cervix uteri, has for the second time raised the question whether Cæsarian section should not in these cases be performed, instead of some operative proceeding *per vias naturales*. An opinion was expressed during last session that it would be better in *all* cases to have recourse to Cæsarian section. In this opinion I cannot concur, nor do I think that obstetrical authorities generally will endorse it. In some cases of undoubted malignant disease of the cervix uteri, where the affection is limited, no interference at all may be required; and even where disease is more extensive and involves both labia uteri, it is surprising to see sometimes what nature will effect in overcoming the obstacle, without serious detriment to mother or child. In other instances, again, some artificial dilatation, or one or more incisions into the lateral margins of the os uteri, may be all that is required to favour delivery, and this is far less hazardous than the capital operation of Cæsarian section. When malignant disease is so advanced that the deposit is thrown out into the adjacent structures, and such impedi-

ment exists to delivery by the natural channels as to forecast grave laceration of the maternal parts, and possibly evisceration of the fœtus as well, then, timely abdominal section probably becomes the more conservative operation, and affords a better chance both to mother and child.

The Society will still have in fresh recollection the interesting communication by Mr. Jessop, of Leeds, on a case of extra-uterine fœtation for which abdominal section was performed. This, I believe, is the first of the kind occurring in Great Britain in which the lives of both mother and child were saved; although, as pointed out by Dr. Wiltshire, Keller, of Strasbourg, has related nine cases, in which four of the mothers recovered, and seven children were saved.

There can be no doubt that Mr. Jessop and his colleagues exercised a wise discretion in electing to remove the fœtus by abdominal section in the case reported; for the mother's life was in jeopardy, and yet there was evidence that the child was alive. But I ventured to remark during the discussion that the recital, marvellous though it was, on account of the perils surmounted, could not be taken as a justification for like interference where no such imminent peril to the woman is present. There can be no uncertainty about the grave position in which a woman is placed who is the subject of extra-uterine fœtation in any of its forms. During the whole progress of gestation there is the ever-present danger of rupture of the containing sac, and the subsequent internal hæmorrhage and collapse. If this catastrophe be avoided, intercurrent peritonitis is rarely absent, with all its forms of functional derangement and suffering. Later comes the inconvenience and peril, in many instances, of spontaneous suppuration after the death of the fœtus, and its slow extrusion from some forced outlet.

Fortunately, extra-uterine fœtation is not very common, but cases occur with sufficient frequency to give most medical men in practice an opportunity of encountering an example from time to time, and every experience tending to better and more successful treatment is to be welcomed. Hitherto, the weight of experience has been overwhelmingly

on the side of postponing an operation until fœtal life is extinguished, and the suppurative process is well advanced. Dr. Campbell, who wrote a standard work on 'Extra-uterine Fœtation' in 1842, collected a sum of fifty-one operations. The accounts of all are not very complete; but of thirty cases (as I understand the figures), in which gastrotomy was performed or the breach dilated, after suppuration had set in, twenty-eight patients recovered. He gives twelve cases of gastrotomy performed after the suppurative process was well advanced, in which ten were successful; but of nine women operated on during the existence of fœtal life, or soon after its extinction, the whole died. Dr. Parry, of Philadelphia, has, during the last year, published a volume on the same subject, which brings out later results from a much more extended series of cases. In twenty cases of primary gastrotomy the maternal mortality was 70 per cent., or 17·35 per cent. greater than when the cases were left to nature; and the infantile mortality was 60 per cent. On the other hand, in thirty-six cases of secondary gastrotomy, performed some time after full term, not including those in which the operation was merely to assist the efforts of nature, the mortality was only 38·88 per cent. The conclusion is irresistible that, as a rule, so long as the vascular and nervous excitement inseparable from the progress of gestation are present it is unwise to interfere, and that an operation is more likely to be successful after the puerperal state has subsided. Dr. Parry, indeed, believes the most prudent course, when the patient is not in immediate peril, is to wait until suppuration is fully established, and then enlarge any opening made by nature to evacuate the contents.

As Mr. Jessop very justly pointed out, every rule must have its exceptions, and if urgent signs of danger present themselves at any time during the progress, they must be met by attempts at a remedy which, under other circumstances, should be avoided.

In the two last cases which I have seen there has not even been a clear history of suppuration established. In both

instances the children died about the term of gestation,—became encysted, and afterwards gradually shrivelled *in sitû*, the mothers recovering so entirely that only some limited swelling remained as evidence of pre-existing large tumour. As this is not an uncommon termination, it is an additional reason for not exposing the patient, during the period of pregnancy, to the serious risk of abdominal section, in the expectation of a possible danger in the future which may never arise.

But if it be better to abstain from interference generally during the progress of extra-uterine fœtation, there are additional and urgent reasons for not entertaining the suggestion which was made during the discussion on Mr. Jessop's paper —that we should open the abdomen in cases of early tubular pregnancy, with the view of removing the tumour, as in ovariotomy.

It is true that Fallopian pregnancy is a particularly dangerous form of extra-uterine fœtation; that gestation rarely advances beyond the third month without rupture and collapse; but in these cases no parallel can be drawn with cases of ovarian disease, as the excitement of pregnancy renders all operative proceedings more hazardous. Moreover, the diagnosis of tubular fœtation is, in the majority of cases, so obscure, until actual rupture takes place, as, in the present state of our knowledge, to be almost impracticable.

As an illustration of the difficulty in diagnosis, I may mention that not long ago I saw a patient whom I believed to be the subject of extra-uterine fœtation, and whom I recommended to return to her ordinary medical adviser—a man of much experience—that he might watch her progress, and be ready for any emergency which might arise. A few weeks later her medical man brought her back to me. He was now in much anxiety, because fœtal movements had become very distinct, and he thought—although the patient seemed quite well—that some operation ought to be performed to save her from untoward consequences later. I advised him not to interfere, and he then asked my sanction for another opinion, a point I readily conceded, as he pro-

posed to take his patient to a surgeon of great reputation for the treatment of abdominal tumours. To my surprise, the second opinion so far differed from mine that it was clearly in favour of the case being one of normal pregnancy, and not extra-uterine at all. Eventually, however, the term of gestation was passed, and the fœtal movements ceased. Then, without serious symptoms, the child became converted into an apparently innocuous mass, slowly shrivelling and diminishing until no indication of its previous existence could be detected at a later period.

When rupture of a tubular fœtation has actually occurred and the patient is in the face of a deadly peril, it then becomes a question whether it might not be justifiable to cut down upon the locality, for the purpose of removing the offending mass from the cavity of the peritoneum. In such circumstances we meet a desperate case by a desperate remedy; but no spirit of adventure, no desire for fame as operators, should induce us to expose a patient to so serious an operation as is here contemplated, on the mere assumption of a fact which may, in reality, have no existence.

I venture to speak strongly on such matters as these, because I take it to be one of the duties of your President to moderate between views which may seem to be extreme, and to attempt to try them by a judicial standard. I frankly own myself attached to a conservative exercise of our rapidly improving branch of the medical art. At the same time I am most anxious not to take a reactionary part in opposing any useful innovation. I render all honour to the pioneers of progress: but I desire in advancing to keep a fair equipoise, and I hold that when we are entrusted with such important issues we ought to prove each step of progress, and not be led away by an *ignis fatuus* which may end in fatal disaster.

When I observe an almost feverish anxiety, well-intentioned though it be, to interfere before the emergency has distinctly arisen—or in the course of affections like pelvic hæmatocele, for example, where the natural tendency in a large proportion of cases has been indubitably proved to be

towards a favorable termination—I am forcibly reminded of the exclamation of a great statesman in reference to the meddling policy of a political opponent:—"Why cannot you leave it alone?" I desire it to be understood that these remarks do not apply to exceptional cases in which perils or inconvenience is great, and where it is obvious some attempt commensurate with the evil must be made to abate or remove the difficulty. When such an occasion presents itself it must be met courageously and fearlessly; but I believe it requires higher mental training to watch patiently and wait than to act when the necessity for action comes.

In Mr. Lawson Tait's case of vesico-vaginal fistula, cured by operation after a series of unsuccessful attempts which might well have appalled the most enthusiastic of surgeons, the Society had an opportunity of learning what may be achieved by indomitable perseverance, and of deducing the fact that scarcely any case is so bad but may be repaired if both skill and patience are untiring.

Other interesting matters, it may be recollected, have been brought before the Society, and some new instruments have been exhibited; notably a new blunt hook, by Prof. Lazarewich, of Russia; an ingenious thermo-cautery, invented by Dr. Paquelin, of Paris, exhibited by Dr. Oscar Prevôt, of Moscow; and the beautiful apparatus for transfusion, demonstrated in action by Dr. Roussel, of Geneva.

Concerning the question of transfusion, I may inform the Society that the Committee appointed on this subject has reported to the Council that twelve meetings have been held, and many instruments have been presented and examined. The Committee suggested that a physiologist should be appointed to carry out a series of experiments on animals, and for this purpose the Council have granted a sum not to exceed £50.

Since last January we received intelligence of the decease of three Honorary Foreign Fellows, and we have to mourn the loss of six ordinary Fellows, whose names must be regretfully erased from the Society's list.

The names of deceased Honorary Fellows are Professor Tracey, of Melbourne; Professor Channing, of Boston, U.S.; and Professor Simon, of Heidelberg.

I must crave your indulgence while I say a few words concerning the lives and labours of each of the remarkable men who were chosen by the Society to rank as Honorary Fellows.

Dr. Richard Thomas Tracy, of Melbourne, Australia, died on the 7th of November, 1874; but intelligence had not been received of his decease when I delivered the annual address last January. From obituary notices in the 'Australian Medical Journal' and in the 'Medical Times and Gazette,' we learn that Dr. Tracy was born at Limerick, in Ireland, on the 19th of September, 1826, and was educated at the Limerick County Infirmary, and at Trinity College, Dublin. During his pupilage he volunteered as an assistant medical attendant during the famine fever, then desolating Ireland, and almost succumbed to an attack of that disease caught from a patient. Having passed the College of Surgeons in Ireland in 1848, he visited the hospitals in Paris, and eventually went to Glasgow, where he became resident surgeon to the Hospital for Cholera. Cholera was then rife in Glasgow. The hospital contained 700 beds, and for four months during the prevalence of the epidemic he never left the hospital. In 1849 he took the degree in Medicine in the Glasgow University, and being disappointed in a negociation for a share of a practice which he proposed to acquire in London, he determined to go to Australia. After various adventures at the gold-diggings and elsewhere, he settled in Fitzroy, Melbourne, and in that as yet imperfectly organised colony began to develop his resources. He became not only a prominent medical practitioner, but took an active part in all social matters, in the building of the church, and in the enrolment of volunteers. He avoided politics, but became a magistrate for the local bench, and officer of health for the district. In 1855 he started, in conjunction with Dr. John Maund, a Lying-in Hospital and Infirmary for Women and Children, and somewhat later he took part

in the formation of a medical society and the publication of a medical journal. His natural energy, his perspicacity, and his sound judgment would have given him a leading place in any branch of the medical profession, but he inclined especially to the cultivation of obstetric medicine, and earned so much success and prestige in this department that he became the leading authority in the new country. His contributions to obstetrics were always of the most practical kind, and showed him so thorough a master of his art that when a Medical School and University were instituted in Melbourne, he was chosen by common consent Lecturer and Examiner in Obstetric Medicine. In 1871 he was elected an Honorary Fellow of this Society, as a representative scientific gynæcologist in the antipodes. He contributed a paper to our own 'Transactions,' and made a communication to the Medico-Chirurgical Society "On Ovariotomy." He was the first to perform ovariotomy in Australia, and coming to England in 1873, he watched the operations of Mr. Spencer Wells with the greatest assiduity. At this time he was in failing health, and returned to Melbourne in April, 1874, knowing that his fate was sealed, and quite resigned to it. He died seven months later of malignant disease of the mesentery, and at his funeral the whole town of Melbourne went into mourning for him. The 'Argus' newspaper of that date said:—"He was a chief among the people, who had lived an honoured life, and left a cherished name behind him."

Dr. Walter Channing, of Boston, U.S., who died on the 27th of July 1876, at the age of ninety, was a Nestor in his profession. The particulars of his career have been chiefly gathered from an obituary notice in one of the Boston newspapers, signed with the initials T. W. H., and from the 'Boston Medical Journal.' He was one of a remarkable family, and his personal fame was, in a manner, overshadowed by his eminent brother, the Rev. Wm. E. Channing, a great American preacher, with whom his identity was often confused. It is recorded of the subject of this memoir that, in answer to an inquirer at his own door, he said that

he was not the Dr. Channing who preached, but the one who practised.

Dr. Walter Channing was for a long period the recognised head of obstetric medicine in New England. He was the first Professor of Obstetrics and Medical Jurisprudence in Harvard University, an office which he held for nearly forty years. He was, besides, associated with Dr. Jackson, of American celebrity, in charge of the Massachusetts General Hospital from its commencement. He received its first patient, and held office in it for twenty years. Besides various contributions on obstetric medicine, some of which are to be found in the library of this Society, his most important work was entitled 'Etherization in Childbirth, Illustrated by 581 cases.' This volume was regarded as the standard work on the subject. Dr. Channing was one of the first, if not the first, in his own country to use ether in childbirth, and I well recollect his enthusiasm on the subject in writing to Sir James Simpson in the early history of anæsthesia. Besides his devotion to obstetrical science, Dr. Walter Channing was a keen naturalist, and was one of the founders of the Boston Natural History Society. He was a prominent supporter of the anti-slavery movement, the temperance movement, the peace movement, and of the efforts for the prevention of pauperism. Regarding himself as a citizen as well as a physician, he spoke and wrote on a variety of domestic topics, and in the Boston Library is a long list of his numerous writings. He seems to have had an impulsive and ardent disposition, great fertility of mind, and a large fund of wit and humour. His life, like his mind, was crowded with divergent activities, and he was always ready for a new interest. He outlived nearly all his contemporaries. His final illness was without suffering, and his death painless.

Professor Gustave Simon, of Heidelberg, was born at Darmstadt, in 1824. He graduated at Heidelberg in 1847, and was nominated Extraordinary Professor at Rostock in 1861. He then became known to the scientific world through a remarkably learned work on 'Excision of the

Spleen,' a book in which every case to be found in ancient and modern literature, where the spleen was accidentally or intentionally removed, is recorded, and criticised with the greatest acuteness. In 1867 he was transferred to Heidelberg, and remained Professor there until his death, which took place on the 28th of August, 1876. While in Heidelberg he occupied himself with gynæcology as well as general surgery, and in summer he gave lectures on this subject, which were largely attended by foreigners attracted by his reputation, as well as by practitioners and students of his own country. His work on 'Vesico-Vaginal Fistula' was remarkable for the demonstration it gave of the superiority of silk over wire sutures, the utility of which had been before so much dwelt upon. This gave the first impulse of returning confidence in organic as opposed to metallic sutures, and, conjoined with the proofs he gave of the good results of the suture without the use of the catheter, may be said to have given an entirely new aspect to this operation. The dispensing with the use of the catheter after closing vesico-vaginal fistula was received as a startling innovation by almost all our own operators; but subsequent experience has, I believe, proved that the retention of a catheter may in many cases be avoided, and that in others its occasional use only is required. Simon is said to have operated for the cure of vesico-vaginal fistula 250 times. He was the first surgeon who successfully extirpated the kidney. The patient submitted to the operation in 1869, and according to the last accounts was still living. Other innovations due to Professor Simon were of a mode of examining the interior of the bladder by rapid dilatation of the urethra, and a mode of exploring the interior of the pelvis and abdomen by the introduction of the whole hand and part of the forearm into the rectum. Mr. Spencer Wells, who knew Simon well, and to whom as well as to Dr. Tuckman I am indebted for some particulars of this sketch, assures me that under his guidance he was enabled to reach the kidney by this way of examination.

I do not attempt to enumerate all his works. His con-

tributions to clinical surgery were very numerous, and his originality and industry marvellous. In the opinion of very competent authorities few men have done so much good work for surgery in general, and gynæcology in particular. His memory has received a graceful tribute in a warm eulogy by Dr. Braun, in the 'Berliner Klinische Wochenschrift.' Dr. Braun says, "he was one of the most famous as well as the most dexterous operators in Germany, and possessed all the qualifications for this in the highest degree. Belonging to no school, he became everything by his own zeal and by his own strength. All who knew him recognised his open honest character and his singleness of purpose. All who personally came in contact with him, whether patients, pupils, acquaintances, or friends, all felt themselves irresistibly drawn towards him, and to all such his memory will be imperishable." In 1870 Simon began to feel symptoms which must have been the precursors of his last illness, and in 1875 he thought it right to retire for a time from his duties as professor.

On the day preceding his death he had been feeling unusually well, but was seized with dyspnœa in the evening, and was so distressed that he begged to have tracheotomy performed. This apparently gave him some relief, but it was only temporary, as he passed away without any great struggle on the night of the following day. An autopsy proved that he had died of aneurism of the ascending aorta. His death caused great sensation in Germany, and a stately funeral, attended by a multitude of mourners, testified to the great esteem in which he was held by all classes. On his death-bed were found the proof-sheets of a book which has since been published, "On the Treatment of Surgical Diseases of the Kidneys."

The names of the deceased ordinary Fellows are:—Frederick Augustus Stutter, M.D., Farnboro' House, Upper Sydenham; Fred. Turton, Alton House, Wolverhampton; Henry Hardinge, M.D., 18 Grafton Street, London; Sir John Cordy Burrows, J.P., F.R.C.S., Old Steine, Brighton; Thomas Taylor Griffith, F.R.C.S., Consulting Surgeon to

the Wrexham Infirmary; and William Sudlow Roots, F.R.C.S., F.L.S., Surgeon to the Royal Establishment of Hampton Court, an original Fellow of the Society.

All these names have rendered some service, directly or indirectly, to gynæcology, according to their sphere or opportunity, and while living desired to participate in the advantages shared by the Fellows of this Society. Sir John Cordy Burrows, of Brighton, and Mr. Griffith, of Wrexham, were notable characters in their respective localities, and were so esteemed for their public as well as their professional services that their townsmen observed a general mourning on the day of their funeral.

Notwithstanding these grievous losses, the Society is undoubtedly in a most active and flourishing condition. The number of Fellows now exceeds 700, and no less than eighty-two ordinary Fellows have been elected during the past year. As an indication of the attractive character of its proceedings, I may state that sometimes more than 100 Fellows and visitors have been present at the meetings, and the average attendance at each meeting during the Session has been nearly seventy. The successful Conversazione given by the kind permission of the President and Fellows in the Royal College of Physicians was attended by medical practitioners from all parts of the country. Especial thanks are due to the Conversazione Committee for their exertions on that occasion, and particularly to the honorary secretaries and Dr. Grigg for bringing together so large and interesting a collection of instruments and works of art.

The demand for the 'Transactions' has been so considerable that the Council have ordered a largely increased number of copies to be printed, and the financial condition, notwithstanding all that has been undertaken during the year, is, as the Treasurer's report shows, most satisfactory.

It only remains for me, in retiring from the Chair to which, through your favour, I was elected two years ago, to acknowledge my profound sense of the advantage I have gained in presiding over a Society possessed of so much vitality. The earnestness which pervades its proceedings

may need at times some control, but it is at least a sign of health and vigour, and I have distinctly felt its influence as an incentive to renewed exertion. I have to thank the Society very cordially for the way in which it has facilitated the conduct of business, and the responsive manner in which it has respected the decisions of the Chair. To the Council and other office-bearers I have to acknowledge my indebtedness, and more especially to the Honorary Secretaries and Treasurer are my thanks due for important aid on all occasions.

In taking my leave I must warmly congratulate the Society on having secured for its next President so distinguished a representative of obstetric medicine as Dr. West. Dr. West's name is as familiar with us as a household word, and it is respected throughout the world where gynæcology is cultivated. To our new President I am personally indebted for the most unselfish services during a period of severe illness and anxiety, which any one brother physician can render to another, and recollection of these is always vividly before me. I can only say that had I known Dr. West could have been persuaded to accept the Presidency of the Obstetrical Society at an earlier period I would gladly have postponed my term of office until I could have had the advantage of his example and precept as my predecessor.

At its conclusion it was moved by Dr. Braxton Hicks, seconded by Mr. Arthur Tapson, and carried with applause,—

"That the best thanks of the Society be given to the retiring President, Dr. Overend Priestley for the courteous and efficient manner in which he has presided over the meetings of the Society during his two years of office; and that he be requested to allow his excellent address to be printed in the 'Transactions' of the Society."

The President acknowledged the honour done him, with thanks.

It was moved by Dr. GRAILY HEWITT, and seconded by Dr. PLAYFAIR,—

"That this meeting desires to express its best thanks to the retiring Hon. Secretary Dr. A. Wiltshire for his zealous and valuable services to the Society during his term of office."

Dr. WILTSHIRE returned thanks.

And it was also moved by Mr. LANGMORE, and seconded by Mr. GEORGE ROPER,—

"That this meeting also expresses its thanks to the retiring Hon. Librarian, Dr. Aveling, and to the retiring Vice-Presidents and other members of the Council for their valuable services during their years of office."

FEBRUARY 7TH, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

Present—69 Fellows and 9 visitors.

Books were presented by Dr. A. H. McClintock, Professor Macari, and Dr. J. Veit.

The following gentlemen were admitted Fellows of the Society: Thomas E. Bowkett, M.R.C.S., Peter L. Burchell, M.B., Gerald S. Harper, M.R.C.S., Neville Holland, M.R.C.S., William H. Maberly, M.B., S. Wordsworth Poole, M.D., H. Campbell Pope, M.B., and Charles T. Savory, M.D.; and the following gentlemen were declared admitted:—George Langsford Clay, M.R.C.S. (Birmingham), Douglas W. Giffard, M.R.C.S. (Brighton), Charles Godson, F.R.C.S. (Barnet), and Paul Rudolph Osterloh, M.D. (Dresden).

The following gentlemen were elected Fellows:—Nathaniel H. Clifton, F.R.C.S., James Crawford, L.K.Q.C.P.I. (Sevenoaks), Samuel H. Darson, M.D., James Fow, M.D. (Eltham), Samuel Johnson, M.D. (Stoke-upon-Trent), and George Walker, L.R.C.P.

Professor Stoltz, M.D. (Nancy), and Professor E. R. Peaslee, A.M., M.D. (New York), were elected Honorary Fellows, and Wm. Goodell, M.D. (Philadelphia), and Horatio Storer, M.D. (Boston, Mass.), were elected Corresponding Fellows of the Society.

The following gentlemen were proposed for election:—Albert De Winter Baker, L.R.C.P. (Dawlish), Marshall M. P. Dean, M.D. (Toronto), Thomas Silvester Gell, M.D., William Wright Hardwicke, L.R.C.P. (Rotherham), Lewis James May, M.R.C.S., Montagu H. C. Palmer, M.R.C.S. (Newbury), and Arthur L. Smith, M.D. (Ottawa).

Dr. PALFREY showed a monster with two heads, three arms, one trunk and pair of lower extremities. The heads were nearly on a level, and the two passed through the vaginal outlet at the same time.

Dr. PRIESTLEY asked what amount of traction was necessary to effect delivery, what degree of laceration was caused, and what was the state of the mother afterwards.

Dr. TIPPLE, who attended the case, replied that the woman had had local peritonitis and a large ulcer behind the left iliac crest.

Dr. BARNES said that the longer head fitted into a concavity in the other.

Dr. HEWITT said it was evident that one head came down somewhat before the other.

The PRESIDENT referred the specimen to Dr. Hayes and Dr. Playfair for further examination and report.

Dr. GODSON showed a fœtus of which he had delivered at term a woman suffering from extensive epithelioma of the cervix. The patient was seen at the commencement of labour, and the question of Cæsarean section was discussed. It was decided, however, to attempt to deliver *per vias naturales*, as affording a better chance of recovery to the mother.

Dilatation by Barnes's bags, turning, and perforation at the occiput, with cephalotripsy, were subsequently adopted. The delivery was tedious and difficult, and ether was administered throughout. Though excessively rigid the margin of the os apparently escaped laceration; and the patient at this time, five days afterwards, was doing well.

Dr. EDIS called attention to a similar case he had brought

before the Society in 1875, where delivery of a living child at full term had been accomplished by the aid of the forceps, the child surviving, the mother succumbing from pyæmia, due apparently to the pressure produced on the maternal passages. He considered Cæsarean section offered better prospects of recovery for the mother and less risk to the child than any attempt to deliver *per vias naturales*, where the cervix uteri was extensively involved by malignant disease.

Dr. Heywood Smith exhibited three new points for Paquelin's Petroleum Cautery. One, the invention of Mr. Reeves, consisted of a fine point which that gentleman used with great success for the cure of hæmorrhoids by puncture; the other two, which were made at his own suggestion, consisted of a smaller button than the one supplied with the instrument, and slightly elongated for application to the external os uteri; and the other was in the shape of an ordinary uterine sound for cases of endocervicitis.

Dr. Heywood Smith exhibited a new belt—Bailey's "Patent" Abdominal Belt. The chief disadvantage of all abdominal belts was their tendency to ride or ruck up over the hips. The special feature in this belt is that a separate slip embraces the prominent part of the hip and fixes the belt laterally. Then the under straps are so attached that the whole belt is steadied, and it retains its position, even after some wear, better than those ordinarily made. The lower parts of the under straps are made of soft wool and washleather to admit of their being easily cleaned.

Dr. Heywood Smith also exhibited a New Portable Pelvimeter imported from Russia, and now made by Messrs. Meyer and Meltzer. It folded into a space seven inches long and two and a half inches wide. The great advantage it presented was that the one instrument could be equally used both for internal and external measurements.

INAUGURAL ADDRESS.

Gentlemen,—My first duty on taking this chair, in which your kindness has placed me, is to return you my most sincere thanks for this most unexpected—I may say, most unmerited —honour.

To be chosen to preside over a Society such as this may well be looked forward to as the reward of years of devotion to its interests, and of labour to promote its objects. But I had no such claims to urge; and when some years since you conferred on me the distinction of making me one of your Honorary Fellows, you had more than overpaid the value of any work done by me in those departments of our art which this Society especially cultivates.

The terms in which your late President has spoken of me, kind and generous as they were, have but added to the difficulties which I feel in entering on my new duties. I dread lest I should fail to come up to the standard by which your too partial judgment has measured me, and from my schoolboy days the words are ringing in my ears, spoken concerning one of old, who "major privato visus, dum privatus fuit, et omni consensu capax imperii, nisi imperasset."

Hoping to avoid this censure, and striving how best to do it, I have cast about in my own mind to discover what special reason may have influenced your choice, and how I may best prove worthy of it. I imagine that I have found your reason in this: that accident having placed me for some years just outside the path in which your members tread, I may, perhaps, be of use by helping to prevent a special society becoming too special, and by endeavouring to tie more firmly the threefold cord by which medicine, surgery, and obstetrics should be bound together, so as to perfect, as far as may be, that art of healing to which, in its widest sense, we have all devoted ourselves.

With this idea I have carefully gone through the seventeen volumes of your 'Transactions.' I trust that you will not

consider it an impertinence if I say how much I have been struck with the number and value of the communications which they contain on subjects strictly connected with obstetrics. The induction of premature labour, the indications for the use of instruments, the evils of procrastination, the substitution of the cephalotribe in some instances for the ordinary craniotomy instruments, the management of the various forms of uterine hæmorrhage, are but a few of the important topics to the elucidation of which large experience, careful observation, and much critical acuteness have co-operated.

Nor have the diseases either of pregnancy or of the puerperal state been passed unnoticed; and I cannot refrain from a reference to the valuable essay of one of your former presidents on "Puerperal Diseases," or to the debate on Puerperal Fever, which, under the able control of my predecessor in this chair, showed where our knowledge wanted in precision, and cleared the way for future progress.

I observe that my friend Dr. Murchison, on taking the chair of the Pathological Society, offered some suggestions with reference to its future work. May I, without offence, venture to do the same? This Society was instituted "for the promotion of knowledge in all that relates to obstetrics and to the diseases of women and children." The first part of this programme has been excellently well fulfilled. We might, perhaps, with advantage give more time to the second and third. I find that of sixty-three papers (I do not speak of short contributions, often, indeed, of much value), forty-one are devoted to obstetrics strictly speaking, or to the disorders of the pregnant or puerperal state, fourteen to the diseases of the non-parturient woman, and eight only to those of children.

Of the papers devoted to the diseases of women all, I think, without exception, concern the local diseases of the sexual organs; and, most important though they are, I think our view should embrace a wider horizon. And I confess that I almost begrudge the College of Physicians Dr. Braxton Hicks's promised Croonian Lectures "On the Difference

between the Sexes in relation to the Aspect and Treatment of Diseases."

Their title seems to me to indicate the exact position which the members of this Society should endeavour to secure for it,—not that of mere specialists who have cantoned out for themselves a little province in the scientific world, beyond which they do not care to travel, fancying themselves in an intellectual Goshen, and that they always have light in their dwellings while all is dark around; but rather that of sound physicians and able surgeons, who for the public good have superadded to their general knowledge a particular acquaintance with certain departments of our art.

And here, gentlemen, I purposed ending what I have to say, thinking that I should be better able to counsel when I had had more experience as your President, and doubting how far one who for many years has given up the practice of obstetrics could safely venture on criticism.

But some of my friends tell me that you desire to hear me say frankly what strikes me as an outsider (if I may so call myself); and they assure me—of what, indeed, I need no assurance to be convinced of—that you will receive what I say with all kindness and indulgence.

First, then, it seems to me worth considering whether, in the interests of the public, and of the poor in particular, this Society should not attempt more than it has hitherto attempted to ensure the better education of women practising as midwives. I am aware that occasional examinations are held by a committee of this Society, composed of men whose reputation would gain nothing by my praise; but I also know that the number of candidates is very small, and the practical result of the action of the Examining Board is inappreciable. I think if we have (as has been the case during the past few years) only some five or six candidates to examine annually, we should either renounce a futile endeavour, or else take steps to bring that endeavour to a real fulfilment.

If the latter course should be determined on I would submit, for the consideration of the Council and of the Society at large, whether we should not request the members of the Examining

Board for Midwives to obtain from France, Germany, and elsewhere on the Continent, the regulations by which the Governments of those countries provide for the proper education of midwives, and an account of the examinations by which their qualifications are tested; and that we should then draw up a well-considered scheme adapted to the peculiar requirements of this country. In doing this we should, I doubt not, be greatly helped by addressing a circular to the Fellows of this Society through the country, some of whom living in rural, others in urban districts, would be able to inform us as to the special want in their neighbourhood, and as to the best means by which, without putting the poor women to needless expense, their proper education could be ensured and their fitness tested. If we think the object worth striving for, it is clear that we can obtain the concurrence of the authorities only by submitting to them a carefully digested plan, and that we neither can nor ought to expect to gain anything by asking them to do a something we know not rightly what.

Next as to the promotion of the special objects of the Society. I do not know to what extent the investigations of the Committee on Transfusion will be put a stop to by the law relating to vivisection, which may interfere with the experiments they were anxious to have carried out. I doubt not, however, that their past labours have added much to our knowledge, and that, coupled with the exhaustive work on the subject by M. Oré, they have placed us, with reference to this great remedial measure, "Sacra Ancora Vitæ," when life would otherwise make shipwreck, in a very different position from that in which we were before.

I have just learnt with much pleasure that, in addition to a contribution from our much-respected colleague Mr. Spencer Wells, the important question of the comparative advantages of the rare and the frequent use of the forceps in obstetric practice will be brought before the Society at an early meeting. The question is one, however, which statistics alone will never settle; for what conclusion can we draw from facts such as that Dr. Collins, of Dublin, applied the forceps once

in 600 labours, and the late Professor Stein, of Marburg, once in five and a half? Dr. Braxton Hicks and the late lamented Dr. Phillips have shown in their valuable papers in vol. xiii of your 'Transactions' the unavoidable sources of error attaching to the statistics of instrumental labours, and which vitiate their results far more than the statistics of the capital operations of surgery are vitiated by any similar causes.

We shall be glad of any new light thrown upon the subject, but I doubt whether we shall advance in certainty much beyond the point to which the wise and weighty words of your late President would lead us. I have as little doubt as he that the aggregate of mischief done in obstetric practice by idle waiting "to see what will come of it" is far greater than that wrought by the premature, or even needless, use of instruments. At the same time there is one point on which I think it impossible to insist too strongly. Instruments are to be used and operations resorted to exclusively for the sake of the patient and her child,—never for the sake of the doctor. And yet I have in years gone by heard men say—"I could not wait any longer; I had this to do, or that, and so I put on the forceps, and got the case over." I envy little his feelings if, as must sometime happen, even with small fault of his, the patient should do badly, and his forceps case should leave a home desolate and children motherless.

The interesting question of the production of albuminuria by puerperal convulsions, as well as of puerperal convulsions by albuminous urine, is well worth a more minute examination. I have no doubt of the fact, and have seen it illustrated in the convulsions of children. But both that question and the whole subject of convulsions in the parturient and puerperal woman need further study, for we all must feel that the last word has not yet been said about either their pathology or their therapeutics.

As I have already ventured to observe, in the department of the diseases of women the local ailments of the sexual organs and their local treatment have received almost exclu-

sive attention, if I except the valuable essay "On Chorea in Pregnancy" by Dr. Barnes.

Now, it may be perfectly true, as an old writer has said, "Propter uterum mulier est quod est"; but to read the aphorism rightly, we must take the word in the wider sense as expressive of the peculiarities of the one sex as distinguished from the other—peculiarities which show themselves long before puberty has arrived, and which continue after the period of sexual vigour has long passed: hysteria, epilepsy, spinal hyperæsthesia, the whole tribe of disorders of the nervous system, are vastly more frequent at all ages in the woman than in the man.

A similar class of ailments prevails during dentition in both sexes; but as in the child they depend upon causes far more deeply seated than the local irritation of a tooth which vainly strives to pierce the gum, and which the gum-lancet would relieve, so the source of these and other disorders of the female system is far more complex than a mere displacement of the uterus or a change in its form, or an abrasion of the edges of its orifice. No one can doubt this who has seen, as we all have, the woman following some form of hard bodily labour with a procident uterus, or seeking to marry with advanced ulcerated carcinoma, or deluding herself with hopes of pregnancy with a large uterine fibroid or well-marked ovarian dropsy.

> "Es ist ihr ewig Weh und Ach,
> So tausendfach,
> Aus einem Punkte zu curiren"

was indeed the advice of Mephistopheles to the student; and its adoption would at least wonderfully simplify both our pathology and our therapeutics.

But I demur to this teaching, and to the practice to which it would lead. We are physicians first,—then specialists; and in any case it should be only when the general knowledge of medicine, acquired in the hospital or at the bedside of other patients, fails to solve the question of the nature or the treatment of an illness that we call in our special knowledge, and

inquire whether in the local condition of the womb there is that which would explain the symptoms, and whether by local medication we can expect to bring about their cure.

And it is just because we are in danger of exaggerating the importance of that special knowledge, the value of that special skill, which other members of our profession either do not possess, or possess in a much smaller degree than we do, that I am so anxious, both for the growth of our own moral and mental stature, as well as for the progress of our art, that we should not so give ourselves up to mere detail, however interesting or important, as to lose sight of the broad principles of medicine and surgery.

This risk with some of us is very great. I have often felt that I would give almost anything for a six-months' clinical clerkship and dressership in one of our general hospitals; or for the same time to spend in looking after what is called general practice,—which, if rightly used, is the most improving of all schools, since in it there is an unceasing demand, not for one kind of knowledge, but for all.

Happily, within certain limits, this Society gives us the means of keeping the broad principles of medicine—the science and the art—constantly before us; for we can lose sight neither of the one nor of the other in the study of the diseases of children. I trust, therefore, that some, especially of our younger members (for with them the maintenance of the larger views is for their own sake the more important, while their mind has not yet crystallised into unchanging forms), will turn their attention, for our sakes and for theirs, to a field which this Society has hitherto so little cultivated, but which yields indirectly as well as directly so rich a harvest.

To sum up all, gentlemen, I am anxious that we should not work in the spirit of the ancient guilds, which fostered technical skill indeed, but within certain very narrow limits, beyond which they had no ambition, no sympathy. I am anxious that we should feel ourselves citizens of one large commonwealth; or perhaps, rather, soldiers in one vast army. We have all learnt our drill; we are all fit to take our place

in the ranks; our aim is single, but one is the more skilful engineer, one the better trained artillerist.

You have chosen me to lead for a year or two your arm of the service. May I prove worthy of your choice.

TWO CASES OF INVERSIO UTERI.

By Mr. Hickman.

In June, 1872, a midwife sent for me to go at once and help her at a confinement. I went directly. On going into the room the midwife told me that Mrs. K—, a publican's wife, a pluripara, between thirty and forty, had been confined of one child, but there was a something, a "misconception," which wanted to come away. Mrs. K— seemed very prostrated, though she had not lost a very large quantity of blood.

On examining, a tumour about as large as a fœtal head was protruding between the thighs, and at the lowest part of it was seen very distinctly where the placenta had been attached. The uterus was quite relaxed, but there was no bleeding going on now. I oiled my hands and squeezed the tumour between them, and pressed it upwards and backwards. It went back pretty easily at the second attempt. I followed it up with one hand, put a binder on, and gave her some ergot. The woman did very well indeed.

In this case the uterus must have been inverted for at least twenty minutes. Whether the woman had pulled in the cord or not it is impossible to say. She denied having done so.

The second case occurred this year in the practice of Mr. Palmer, and was the subject of inquiry before a coroner.

Mrs. W—, æt. 26, primipara, was attended by a midwife. There were several people in the house all drinking together, including the woman who was just going to be

confined. It was a long lingering case, and after the child was born, and before the placenta was detached, the uterus suddenly became inverted completely. The midwife sent for help directly, but when the medical man arrived the patient was extremely collapsed, and could only just speak. He peeled off the placenta and replaced the uterus, which was quite relaxed, but the woman died almost directly afterwards, *i. e.* nearly half an hour after inversion. It was impossible to get full particulars in this case, as nearly all the people were tipsy. The lying-in woman said the midwife had not used any violence to her. The midwife was acquitted by the jury.

SPONTANEOUS INVERSION OF THE UTERUS.

By Francis Ellington, Brookville, Ontario.

In connection with a case read before the Obstetrical Society, October 6th, 1876, the following case of *spontaneous inversion of the uterus* may not be uninteresting. Some years ago I attended, in Birmingham, the wife of a cabinet maker residing in a confined, unhealthy part of the town. She had had three or four children, was very weak and delicate. Her labour was a favorable one, and rather quick. The placenta was expelled naturally, accompanied by a free discharge, which soon ceased.

The following day she was comfortable, but weakly. The next day I was summoned to her in haste. I found her in a state of collapse, pale, faint, cold, and almost pulseless. On inquiry I found the nurse had given her a large dose of castor oil, contrary to my orders, and during its operation the uterus had become completely inverted. I had no difficulty in reducing it. First placing her on her back, with her knees drawn up, I applied gentle pressure to the lower part and sides of the tumour, when the uterus jumped, as it were, into its place. She was immediately relieved, and recovered perfectly. I might mention that I had requested

the nurse not to give any aperients until I told her to do so, as I have an objection to acting upon the bowels before the third or fourth day in weakly women and under ordinary circumstances.

Sometimes pressure over the fundus uteri, immediately after the expulsion of the placenta, unless the pressure be equally distributed, may give rise to partial inversion, particularly if the body and sides of the uterus do not contract readily. In one instance I noticed whilst applying pressure to the fundus in a case of post-partum hæmorrhage that it suddenly became cup-shaped, partially inverted. Steady pressure on the sides and body of the uterus quickly restored the fundus to its normal shape.

CASES OF INVERSION OF THE UTERUS.

By Clement Godson, M.D.

(From notes by W. H. Mabberly, M.B.)

Eliza C—, æt. 21, married eighteen months, one child, no miscarriage, admitted into Martha ward, St. Bartholomew's Hospital, under care of Dr. Greenhalgh, on November 15th, 1875. Catamenia began at fourteen, regular every four weeks, and lasting three or four days. Patient had never suffered from any uterine complaint, and was confined at full time of a female child on June 15th, 1876. She states that her labour was not a difficult one, and that her medical man arrived at about 11 p.m., and broke the membranes himself. He was with her all the time, the child was born at 4 a.m., and the placenta was removed by him shortly afterwards. Severe hæmorrhage followed, and she was told that the doctor arrested it by pouring a pailful of cold water on her abdomen, but she was insensible at the time.

Patient says that after this the doctor never made any examination, either abdominal or vaginal.

She was very weak afterwards, and was in bed a month.

At each menstrual period she lost blood profusely for ten days to a fortnight, but she had medicines from the doctor which checked the bleeding, and between the hæmorrhages she had a thick yellowish discharge. Her child died when it was seven weeks old. Patient is a well-made young woman, fair complexion, very pale and blanched, and skin lax. Pupils very widely dilated. Has no pain anywhere. Appetite is very hearty. Sleeps well. Bowels regular. Is highly nervous. Patient was kept in bed, and ordered Pil. Ferri Redac. gr. v., t. d.

On November 16th Dr. Greenhalgh made the following examination:

Abdomen.—No uterus to be felt on deep hypogastric pressure. No dulness anywhere on percussion.

Vagina very capacious, lax, and moist. Occupying and protruding into vagina is a pear-shaped body, broader at its lower, and narrower at its upper extremity, which is surrounded by a smooth, uniform ring, between which and the projecting body the finger can be passed about three quarters of an inch up all round. The protruding body is smooth, and uniformly globular. No depression, or opening at its lower extremity. *Sound* can be passed easily all round its upper part, to the extent of three quarters of an inch, followed by slight bleeding. Finger in vagina almost meets hand on hypogastrium. No uterus intervenes. Under ether Dr. Greenhalgh attempted to return the uterus by pressure with the hand in the vagina on the fundus, counter force being exerted on the abdomen with the other hand, but though he used considerable force for about ten minutes he could only compress the uterus into the os without restoring its position. Dr. Godson also made an attempt, but without any success. As the result of the force necessarily used on this occasion, considerable laceration in the left vaginal wall was found.

On December 4th the uterus was cooled by means of ether sponged through a speculum, hoping that sufficient contraction might result to make reduction possible.

From December 12th to 25th her menstrual period lasted,

and whilst micturating on the first day of its flow patient said she felt her womb falling down, and pushed it back with her hand, though it did not protrude through the vulva. She said this often occurred at her menstrual periods. After this she was not allowed up for any purpose, and the foot of the bed was raised about ten inches to allay hæmorrhage, and styptics were occasionally used, though plugging never had to be resorted to. At the end of this time she had lost a good deal of the colour she had gained before the period began, and the pupils, which had gradually diminished in size, were now dilated as before.

On January 4th a similar but unsuccessful attempt was made to return the uterus.

On January 10th Dr. Godson endeavoured to return the uterus by pressure of the hand in the vagina as before, and the same thing was tried by myself, but we were both unsuccessful. Accordingly Dr. Godson passed the chain of a large écraseur round the neck of the uterus as high up as possible, and by turning it one notch per half minute the uterus was removed with scarcely any bleeding. Patient was placed in bed without anything further being done, and a morphia suppository, gr. ½, was given.

At 11 p.m. the same night there was rather profuse hæmorrhage, which was arrested by the application of ice to the abdomen, and by placing pieces of ice in the vagina about every five minutes. Patient slept well nevertheless, and hæmorrhage quite ceased in about five hours.

On each of the next two days there was some bleeding, but patient was otherwise quite well. A blister was produced on the hypogastrium on the place where the ice was. After this there was never any more bleeding, and the patient got up for the first time, on January 23rd, for an hour or so. Since then she has been gradually gaining strength, and has been up daily. Has no pain, eats and sleeps well, and has no vaginal discharge. Her pupils are much less dilated, and she is fast regaining colour.

Feb. 3rd.—Dr. Godson's examination was as follows:—Occupying roof of vagina is a short, broad protrusion, with

a transverse fissure admitting finger, and feeling like a short cervix with a patulous os. To left of vaginal wall is some thickened tissue where the former rent existed. No tenderness anywhere. The scar on the abdomen is healing well, and is quite small.

Discharged cured.

Case 2.—E. C—, æt. 31, admitted August 10th, 1876, married five years and a half, miscarriages three, and one child born two years and a half ago. Her confinement was easy, and she does not think there was much hæmorrhage; she was conscious at the time, but the doctor plugged the vagina with a pocket-handkerchief, which was taken out by the nurse three days after, and he never made any examination of her again. Ever since this she has felt a lump down in her vagina, which comes down lower at her menstrual periods, on which occasions she has always a profuse hæmorrhage. Between her periods she has a yellowish discharge constantly. Patient is very weak and anæmic, and was greatly exhausted after walking upstairs to the ward.

On August 14th Dr. Greenhalgh made the following examination:

Abdomen normal.

Cavity of vagina occupied by a somewhat firm and slightly pear-shaped body, larger at its lower than at its upper part, attached to the roof of vagina, and surrounded at its attachment by a ring. Within the ring the sound cannot be introduced. By pressure on hypogastrium the uterus could not be detected, but ready impulse was conveyed on pressure to the finger in the vagina.

On August 31st, under ether, Dr. Greenhalgh, and Dr. Godson, attempted to return the uterus by pressure of one hand in vagina, and the other on the abdomen, the pressure being kept up for about twenty minutes; but, though the uterus could be compressed considerably into the os, it returned to its inverted condition directly on removal of the pressure. Patient was kept constantly in bed, with nourishing diet, and pills of Ferrum Redactum ter die.

On September 28th, having much improved in strength, and having passed a profuse menstrual period, reduction was again attempted in the same manner, but unsuccessfully, by Dr. Godson. An india-rubber air ball was introduced into vagina, and distended with air, but there was considerable hæmorrhage, and it came out shortly after.

On October 19th a plug with glycerine of tannic acid was introduced, and then a distended air ball to press constantly on uterus. It caused a good deal of pain, and after two days profuse hæmorrhage began, and both plug and air ball were removed. The hæmorrhage lasted five days.

On October 26th Dr. Greenhalgh made a third attempt at reduction by the same means, but was obliged to desist for the hæmorrhage occasioned by the pressure of his hand.

On November 16th Dr. Greenhalgh made a fourth attempt to return the uterus in the same way as before, but failing to do so he passed the chain of an écraseur round the cervix, as high as possible, and removed the uterus with scarcely any bleeding. A dry cotton wool plug was put into vagina and patient kept very quiet in bed. After this patient never lost any blood. Temperature was never higher than 99·4°, and pulse 100. Had no pain, took her food well. Got up on the fourteenth day after operation, and left the hospital strong, and feeling quite well, on the twenty-second day after the operation—December 8th, 1876.

On December 10th, 1876, she went down to Somersetshire, doing the journey without staying on the way at all, and wrote to say she was quite well, and not the least tired with her long journey.

She has since written, only two days ago, to say she can do all her household work with ease, and feels quite well, and can walk eight miles without much fatigue.

Case 3.—A. C—, single, æt. 28, admitted into Martha ward, St. Bartholomew's Hospital, November 9th, 1872. Was delivered of a male child two years and a half previously, was in labour three days, considerable hæmorrhage followed birth of child, and the attendant had great difficulty in

removing the placenta. For three days after she lost blood in large quantities, was unable to micturate, and the bladder was relieved by catheter. The doctor then said something must be left behind, and he removed a portion of after-birth as large as her hand. The bleeding, though diminished, continued two months, when she was admitted into this ward, where she remained for six months, during which time, the uterus being found inverted, repeated attempts were made to restore its position by Dr. Greenhalgh. At the end of this time she caught smallpox, then prevalent in London, and when convalescent Dr. Godson made several trials to return the uterus; all, however, were unsuccessful, and it was thought advisable that she should return to her home in the country for a while.

According to the date quoted it was upwards of a year and a half before she returned. She stated that she had lost blood ever since. Her appearance was excessively anæmic, and she was subject to profuse night sweats.

Examination.—Vagina normal length. In centre a pear-shaped, soft, elastic swelling, above which, and high up, more marked in front, is a ring into which tip of finger can be passed.

On November 18th a vaginal dilator was inserted.

On November 20th the feet were observed to be œdematous. Reduction was attempted under chloroform without success, and vaginal dilators were again introduced. Up to December 2nd these bags were employed, being removed daily for a while for the vagina to be washed out. Very little bleeding has occurred.

On December 2nd Dr. Hicks's apparatus was inserted, and its use was continued for a month, twice every week, taxis being applied under chloroform.

From January 3rd to 7th considerable loss of blood took place.

On January 24th the application of iodised cotton and glycerine was commenced and continued to February 13th. Several severe attacks of hæmorrhage occurred, and tannic

acid and glycerine were employed, but the application appeared rather to increase the bleeding.

On June 26th, the condition of the patient being less satisfactory from the constant attacks of hæmorrhage, it was decided to amputate the uterus, which was effected by the chain écraseur. Half a minute was allowed to elapse between each movement of the chain. No hæmorrhage occurred, and the patient recovered without a bad symptom.

When seen last month, three years and a half after the operation. She had never menstruated or had discharge of any kind from vagina, was in domestic service, and in perfect health.

ON A CASE OF INVERSION OF THE UTERUS,

By Heywood Smith, M.A., M.D.,
PHYSICIAN TO THE HOSPITAL FOR WOMEN, AND TO THE BRITISH LYING-IN HOSPITAL.

Being in North Devon in August, 1876, I was asked by Dr. Ackland to see a patient who, he supposed, was suffering from inversion of the uterus, S. T—, æt. 30, had been married one year, and had been delivered in South Devon of a boy two months previously. The labour lasted forty-eight hours, and the child was delivered with the forceps. The placenta was removed with some force. There was considerable vaginal pain for ten days, and for seven days the water had to be drawn off. The bowels being unrelieved for eleven days, an enema was administered and during the straining something came down. The doctor on being sent for put it back (probably only into the vagina). The patient had suffered off and on since then with a coloured discharge, and when I saw her there was rather free bleeding, due to the catamenia. On examination I found a polypoid mass about the size of a small orange occupying the vagina: at its base it was surrounded by a thin shallow ring. The sound revealed that there was no uterine canal at any portion of

the circumference of the tumour; there was no indication of the presence of the uterus in the pelvis by the bimanual examination, and the point of the sound introduced into the bladder could be easily felt per rectum without any intervening structure. I therefore confirmed Dr. Ackland's diagnosis and recommended an attempt for its reduction. The next day Dr. Ackland, the patient being under chloroform, tried to replace the uterus, but, finding that after twenty minutes he made no impression, abandoned the attempt.

The patient was then sent up to town and admitted into the Hospital for Women on September 12th. On examination per speculum the surface of the uterus was seen fairly smooth, red and moist; on being wiped with cotton wool fresh blood was seen to be poured out and to trickle down; several small white threadlike bodies were seen here and there on the surface. The orifices of the oviducts were felt, but could not be brought into the field of the speculum.

The catamenia came on soon after, during which the uterus was frequently under observation, Dr. John Williams having the opportunity of an examination during that period. The blood was seen to cover the whole surface of the uterus, which on being wiped away soon returned and formed, probably from exposure to the air during the examination per speculum, a thin sheet of clot.

On Thursday, September 21st, the patient was brought into the theatre, and put fully under the influence of choloroform; the hand was then introduced into the vagina, which was small, and reduction was at first attempted according to the method generally recommended by constriction at the neck of the uterus, and pressure at the point of flexion. The unequal length of the fingers, and the cramped position owing to the smallness of the vagina, caused that method to be abandoned. Pressure was then made to a considerable extent on the fundus, the cuplike os on the peritoneal aspect being pressed at one time against the promontory of the sacrum, and at another against the fingers placed just over the pubes; but it was soon found

that pressure on the fundus, although it produced a deep depression, caused the portion near the point of invagination to bulge, thus offering an impediment to its reduction. I then, changing hands occasionally as cramp compelled, began to reduce the bulk of the uterus by gradual compression of the whole organ by squeezing it. I then passed the tip of the finger into the insertion of the right oviduct and made continuous pressure. On changing hands I was glad to find that the indentation thus made did not return, and in ten minutes the reinversion was completed; in fifty minutes from the commencement of the operation.

The patient made a good recovery: the os remained rather patent for some time, and some granular condition of the lips of the uterus was treated with the pernitrate of mercury. On October 17th the sound passed the normal distance, the catamenia appeared on the 18th and ceased on the 22nd, and on the 23rd the patient left the hospital well.

After the operation I consulted many authorities on the subject, but found on the whole very inadequate descriptions of the method of operating, and was on the point of thinking that the plan I had pursued was a new one, until I found in Thomas's work on 'Diseases of Women' that Dr. Noeggerath, of New York, had suggested the method of reinversion by commencing at the point of insertion of an oviduct.

But my operation differs from that proposed by Dr. Noeggerath in this, that whereas Thomas remarks that "before reinversion of the neck it should not be tried," I maintain that to commence the reinversion of the uterus at the oviductal orifice is the most rational plan.

I have therefore brought forward this case because I am convinced that reinvagination commencing at one of the oviducts is the most rational and scientific method of operating in such cases. On reasoning out, during the operation, the plan of procedure, I was led to this conclusion by the consideration that at the insertion of the oviducts the uterine wall is thinner than either at the fundus or neck, and so an impression could be made at that spot more easily; and moreover, and which I consider to be the main point of

advantage, as the depression progresses the inverted portion intervening between the finger at the insertion of the oviduct and the point of flexion near the os uteri becomes gradually shorter until at last a small portion of the invaginated cervix gives way and the rest of the uterus, the pressure being kept up, soon follows; the pressure being sustained in a direction diagonally across the pelvis from whichever oviduct the reinversion is commenced.

I would therefore urge in cases of chronic inversion of the uterus that effort be first of all applied to emptying the uterus of blood by squeezing, thereby rendering it flaccid, and then that the operation of reinversion be conducted by steady pressure with one finger at the orifice of one or other oviduct.

Dr. SMITH asked what method of manipulation was adopted in Dr. Godson's case.

Dr. GODSON said that general pressure was first used to expel the blood from the organ, and then pressure on one spot by the thumb. In one case the orifices of the oviducts could not be found; in the others, they were extremely small.

Dr. AVELING thought, in returning inverted uteri, it was a point of great importance what part of the fundus should receive the upward pressure. He had, in a case of only ten days' standing, been unable to force the fundus through the cervix until that portion which corresponded with the insertion of the Fallopian tube was specially selected for pressure.

Dr. BRAXTON HICKS said the difficulty lay in the fact that the uterus was, in most chronic cases, shrunken and small, and its tissue so dense that it was not possible to indent it. Sudden reduction was not free from danger, for he had seen collapse take place while pressure was being made. He thought the slow method of reduction the best.

Dr. ROBERT BARNES said that recent cases could be reduced by the hand. It was advisable to swab the interior of the uterus afterwards with a styptic. Chronic cases were best treated by the slow method of constant elastic pressure and not by brute force. Placing an air-bag in the vagina was not enough. An elastic ring should be placed round the uterus, and pressure exercised from the lower part of the vagina. If this failed, small incisions should be made in the constricting part, and elastic pressure applied again. Amputation was not without danger to life, and it was a mutilation of the woman.

At the conclusion of Dr. Barnes' remarks, Dr. HORATIO

STORER, of Boston, rose, and said that the kind invitation of the President for strangers to take part in the debate of the evening might have emboldened him to offer a few words, even had not the Society conferred on him the high compliment of election as one of its Corresponding Fellows. As an American he could hardly permit the expression that had been used by Dr. Barnes with reference to certain operations for the relief of uterine inversion, that had been performed by his countryman, to pass without comment. These operations, it had been said, were characterised by a degree of "brutality," which it was hoped the English profession would be slow to imitate. Dr. Storer, however, while quite sure that Dr. Barnes' unfortunate epithet had been intended to be taken in a very modified sense, wished it to be borne in mind that these operations—in America, resorted to only in cases of very long standing, the possibility of curing which, after a dozen years or more of displacement, without amputating the inverted organ, had been first demonstrated by Professor James P. White, of Buffalo—were in reality instances of the highest conservative surgery. American gynæcologists looked upon the inverted uterus not as a polypus or fibroid, the removal of which, if possible, was a duty and could only be an advantage, but as still an integral and important portion of the body—to replace and preserve which constituted a much more worthy triumph. This was especially the case where the climacteric was still unreached, after which period any operation was ordinarily not required; since, as was now well known, there had been cases where inversion had so long existed that, as to a greater extent in some instances of simple prolapsus, the cells of the epithelium had practically almost become transformed into epidermic scales and yet, after restoration, so complete a return to the normal condition of the mucous membrane had taken place, that the woman had again borne children. Dr. Thomas' operation, dilatation of the cervical ring from above after abdominal section, to which Dr. Barnes had especially alluded, had proved based on sound reasoning, and so had Emmet's employment of metallic sutures inserted into the uterine wall, by which the progress gained, when reinversion had been but half effected, was stored up as it were, and preserved, until a subsequent occasion, when it consequently became possible to complete the operation successfully. During the discussion, Dr. Storer continued, it seemed to have been forgotten that in a certain proportion of cases uterine inversion was complicated by the presence of a larger or smaller interstitial fibroid, which might tend alike towards the induction of the lesion and to prevent measures for its cure. He had himself seen one case of this special character, in which, all attempts at restoration having failed, it had been found necessary to employ the écraseur. It would at

once be perceived that where such a condition existed, whether the fibroid deposit was in the wall of the cavity or in that of the cervix, uterine contraction after delivery would be almost necessarily irregular and, if but ordinarily severe, might in certain cases eventuate in forcing the fundus downwards, and through the cervical ring into the vaginal canal. After long displacement the return of the organ would be naturally impeded by the same cause that had occasioned its descent and expulsion. This fact of itself threw light upon the causation of inversion in certain otherwise doubtful cases; irregularity of contraction from even a very slight exciting cause, of the character alluded to, tending to increase the power of any other cause, active or passive, and ordinarily inefficient to produce such a result that might chance to be present, whether this were inertia of the lower uterine segment, laceration of the os tincæ or cervix, undue traction upon the cord, attempt at separation of an adherent placenta or, as had been suggested, an unconscious dimpling, by the attendant, of the fundus uteri, while endeavouring to secure sufficient or equable contraction of the organ by kneading it through the abdominal wall, or even by the ordinary downward pressure upon the abdomen prior to fastening the obstetric binder.

Dr. Edis called attention to the comparative frequency of these cases now to what they were in years gone by. Dr. T. Moore Madden, in the 'Dublin Quarterly Journal of Medical Science' for August, 1870, had stated that in the Rotunda Hospital from its foundation in 1745 up to the end of the year 1868, when 190,883 women had been delivered in the hospital, only one case of acute inversion had taken place. In the 'American Journal of Obstetrics' for 1868-9 an abstract is given of fifty-eight cases where the inverted uterus had been removed by ligation, excision, and by both methods combined, showing that at least inversion was not of such rare occurrence in that country, and in the periodical literature of this country there are numerous scattered cases showing that the accident was not unfrequent; still it is comparatively of late years that inversion seems to be of far greater frequency than heretofore, judging by the number of cases recorded. The question at once arises, Can this be due to the method of expression of the placenta advocated by Credé? In experienced hands this is doubtless a great improvement upon traction of the cord as formerly recommended, but it will be readily understood that, if pressure be employed with too great force, or unscientifically, as seems to have been the case in several of the instances recently brought forward, inversion of the uterus is very apt to occur. This is a point well worthy of consideration. As to the treatment of inversion, this will of course vary with the length of time that has elapsed since the

occurrence of the accident. Considerable thought and ingenuity had been brought to bear upon this question, and before deciding to unsex a patient it would be well to resort to every expedient that had been suggested. Dr. Kemp, in the 'Obstetrical Journal' for January, 1875, had recorded a case of five years' duration, where reinversion was effected on the second attempt, by nicking the cervix and forcible taxis under chloroform as suggested by Dr. Barnes. In another case reported in the 'American Journal of Obstetrics' for January, 1876, that had existed for two years, the application of a tightly fitting india-rubber cup, followed by a bandage of thin sheet india rubber, succeeded in restoring the uterus to its natural position. Dr. Worster also, in the 'American Journal of the Medical Sciences' for October, 1869, relates an instance of reduction of a completely inverted uterus of four years' standing by manual pressure alone. The method advocated by Noeggerath, of placing the index finger upon one horn of the uterus, the thumb upon the other, and so compressing as to invert one or both cornua, commencing the reinversion from the insertion of one or other oviduct as illustrated by Dr. H. Smith's case, often succeeded when other more direct efforts at taxis had failed. Courty's method of passing the index and middle finger up the rectum, dipping them into the cervical ring, and thus gaining a point of resistance, should also be tried; and even where these various methods failed, Dr. Thomas's (of New York) resort to abdominal section or a substitute for amputation should not be forgotten. Amputation, whether by the écraseur, ligation, or excision, should only be looked upon as a *dernier ressort*, and not as an operation justifiable under ordinary circumstances.

MARCH 7TH, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

Present—76 Fellows and 14 visitors.

Books were presented by Dr. Galabin and Dr. Samuel C. Busey.

The following gentlemen were admitted Fellows of the Society:—Frank W. Cooper (Leytonstone), James Ford (Eltham), and Dawson Nesbit, M.D.; and James Crawford, L.K.Q.C.P.I. (Ightham), and Samuel Johnson, M.D. (Stoke-upon-Trent), were declared admitted.

The following gentlemen were elected Fellows:—Albert De Winter Baker, M.R.C.S. (Dawlish), Marshall M. P. Dean, M.D. (Toronto), Thomas S. Gell, M.D., W. Wright Hardwicke, L.R.C.P. Ed. (Rotterham), Lewis James May, M.R.C.S., Montague H. C. Palmer, M.R.C.S. (Newbury), and Arthur L. Smith, M.D. (Ottawa).

The following gentlemen were proposed for election:—Michael McWilliams Bradley, M.B. (Jarrow-on-Tyne), William Eddowes, M.R.C.S. (Shrewsbury), H. W. Mansell, M.D. (Melbourne), Robert Otlere, M.B., Richard Paramore, M.R.C.S., and William Wigmore, M.R.C.S.

Dr. MABERLEY exhibited two specimens of placentæ in which the blood-vessels, instead of arising from the substance

of the organ, run along the membranes for some distance from the edge of the placenta, and then unite to form the umbilical cord.

I. From a woman, æt. 29, who had had one child previously, and was delivered on February 19th, 1877, at the eighth month, of a male child.

She had had a slight amount of hæmorrhage on several occasions for the month preceding her confinement, which she could not attribute to any special cause.

Labour was lingering, lasting forty-five hours, but otherwise normal and without hæmorrhage, either before or after delivery, and the placenta was expelled easily.

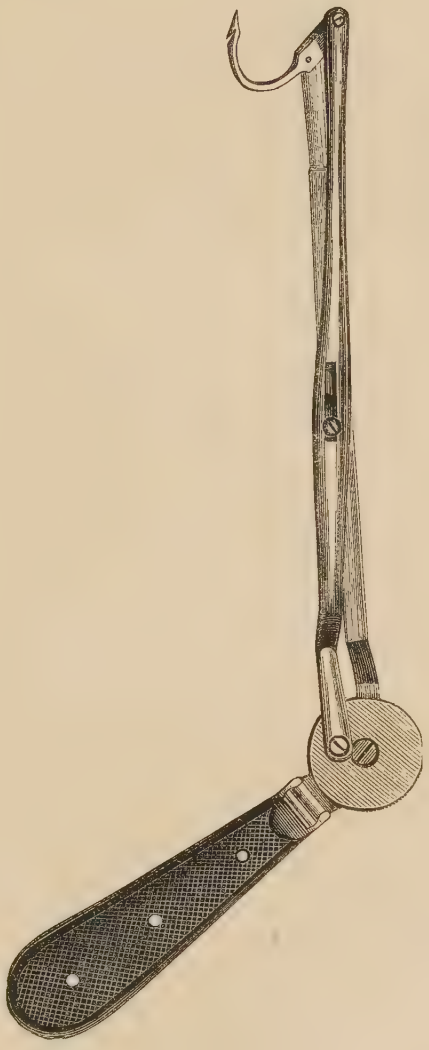
The child, though small, was quite healthy and well formed.

II. From a woman, æt. 25, confined on February 21st of her fifth child, a female.

Patient had come to her full time without accident, and was a somewhat weak, but otherwise healthy woman. Labour lasted thirty-two hours, and the second stage was prolonged by feebleness of the uterine contractions. The placenta was expelled easily, and there was no hæmorrhage of consequence at any time.

In this specimen the umbilical vein is injected, red, and the arteries blue. It has been given to the Museum of St. Bartholomew's Hospital.

Dr. AVELING exhibited a curved needle which by a mechanical contrivance can be made to revolve, giving the operator the power of introducing its point in one direction and bringing it out in another exactly opposite. He had invented it for cases of vesico-vaginal fistulæ, and more especially where the wound to be closed was situated high up or transversely. The needle has a notch near its extremity, in which a loop of the suture to be passed is placed. It is made by Messrs. Meyer and Metzler.



THE FORCEPS IN MODERN MIDWIFERY.

By Arthur W. Edis, M.D.,
PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL, ASSISTANT OBSTETRIC PHYSICIAN TO THE MIDDLESEX HOSPITAL, ETC.

The following observations are submitted to the attention of the Society, more with the hope of eliciting a discussion upon the subject generally, in order that more definite views may go forth to the profession, than with the object of defining under what circumstances the forceps may or may not be employed. That some such expression of opinion is needed for our guidance at the present time will, I think, be conceded by most when we consider the conflicting statements which have appeared of late tending to bewilder the practitioner and so proving most detrimental to the interests, not only of the parturient female, but to a large number of children yet unborn.

The Registrar General's Annual Report for 1874, issued in October 1876, contains some noticeable facts relating to the mortality of women in childbirth, The deaths of 5927 women from puerperal fever and accidents of childbirth occurred in England and Wales during that year, and there were probably many more that should have been added to the number had the deaths been so certified as to allow o their having been properly classified. Can it be doubted that a large percentage of these cases were due to patients being allowed to go whole days and nights in labour without any attempts being made to relieve them?

I could narrate numerous instances where such has been the case, delivery having been delayed for many days, where the application of the forceps served to complete delivery in less than a quarter of an hour. Doubtless I shall be met with the reply that such cases are very rare and occur only in the practice of men quite unfit to practise midwifery.

This may be true to a certain extent, still that such cases

do occur, I have, unfortunately, had too many opportunities of witnessing.

The practice of midwifery seems to engender in the minds of many a tendency to trust implicitly to nature. As long as the head presents they are satisfied, and often allow their patients to endure much needless suffering, waiting, as our President remarked, to see what will come of it, in place of rendering a little timely assistance. Others shelter their ignorance and incompetency under the old axiom of "meddlesome midwifery is bad."

They prescribe largely tincture of Time in place of applying the essence of other's experience, and as a consequence contribute largely to the silent sacrifice of infant life that is daily carried on in our midst. The practitioner who recklessly resorts to the application of forceps, in order to save his own time, irrespective of the actual requirements of the case, fails in his duty to his patient and incurs the risk of rendering the home desolate by sacrificing the life of the mother. On the other hand, by delaying too long to render assistance, where the labour is not progressing, not only is the mother's life unnecessarily jeopardised, but the prospect of saving her offspring is blighted, and the home is rendered none the less desolate. McClintock, to whose recent edition of Smellie I am indebted for much, says:

"The clear definite rules laid down by Smellie, in the middle of the last century, for the application of forceps, and his great success in using it had, no doubt, a very great influence in raising it in the estimation of the profession as well as the public. This led to its over frequent and injudicious employment, as well by competent as incompetent operators, and oftentimes produced deplorable consequences." Cold steel for the child, followed by mercury for the mother, became the rule of practice. But even then the forceps was seldom applied without a consultation, and very rarely, indeed, until the os uteri had been for some time fully dilated. A reaction against the employment of the forceps naturally followed this abuse—started originally by Hunter, Osborne, and Denman—the effect of which remained for

many years, Their application became the exception and not the rule. During the last quarter of a century it has gradually been brought again into requisition, until now we frequently hear of its being used as freely as the catheter. There is, therefore, danger lest we return to the over-frequent employment of it, unless we are prepared to believe that the whole business of parturition should as much as possible be taken out of the hands of nature, and be effected by those of the accoucheur.

The inevitable result of this practice will be another reaction against its employment at all, and their exclusion even in legitimate cases. It, therefore, behoves those who advocate the timely and judicious use of the forceps to deprecate its premature or unnecessary application, lest it come into such general requisition that its over-frequent employment or misapplication lead to a wide-spread prejudice against its use. On the other hand, we must remember that by not employing it until too late, we incur the risk of a fatal issue being ascribed to its having been used, should such occur.

Dr. Priestley, in his recent address before this Society, observed, "The danger now is lest the forceps should be used with mischievous recklessness, and without due consideration of all the issues involved."

My own experience has been the contrary to this. It is mainly on this account I thought that it would be well to bring the question prominently forward, so that those who, from their large experience and standing in the profession, are well qualified to give an opinion, might be enabled to do so.

Dr. West, in his recent remarks before the Society, said the question is one which statistics alone will never settle, for what conclusion can be drawn from facts such as that Dr. Collins, of Dublin, applied the forceps once in 600 labours, and the late Professor Stein, of Marburg, once in $5\frac{1}{2}$.

Still statistics, if only properly compiled, may help us somewhat in arriving at a decision, and I shall not, I trust, be considered as occupying your time unnecessarily if I

briefly call attention to the expression of opinion of a few well able to give it.

During the past year some very suggestive communications were presented to the Society on the statistics of midwifery in general practice. In a series of 1250 consecutive cases observed by Dr. Cooper Rose, the forceps was only employed in 9 instances, or about once in every 139 cases. Although only 2 mothers died, the proportion of stillborn children was 1 in 30.

In Mr. Godson's account of thirty-five years' practice, 3223 cases were attended. In his own practice the forceps was used once in 66 cases. In the combined practice of himself and partner once in 9, and yet in both, about 1 in every 20 children was stillborn.

Dr. J. Braxton Hicks and the late Dr. Phillips, in their "Remarks on Tables of Mortality after Obstetric Operations," read before the Society in 1871, justly call attention to the absurdity of relying upon statistics as a safe guide. Cases which are really examples of the lamentable neglect of the use of instruments are grouped with those where instrumental assistance has been resorted to early and by skilled hands. No wonder that the maternal deaths averaged 1 in 20 in forceps cases, and 1 in 5 in craniotomy cases.

Churchill, all his life, was a strong and consistent advocate for the use of forceps, yet in his own private practice, extending over thirty-nine years, and embracing 2547 labours, forceps were used only in 42 cases, the proportionate frequency of their employment being only once in 60½ cases. There were 17 maternal deaths in all, but only 3 maternal deaths in the forceps cases.

McClintock says in his own private practice he finds he has used the forceps or vectis once in 36 cases. He thinks that, provided this powerful instrument be employed by skilful hands under the direction of experienced heads, it may be employed at the rate of 1 in 10, with perfect safety to mother and child, and with a great saving of pain to the former and of time to the operator.

Dr. George Johnston, in his 'Seventh Clinical Report of the Dublin Rotunda Lying-in Hospital,' for the year ending November, 1875, states that 1025 patients were delivered at full time in the hospital, and in 113 instances with the forceps, or about 1 in every 9 cases, 83 of these being primiparæ, or more than two thirds. In answer to the objection that has been raised by some that the forceps is a dangerous instrument, and as a proof to the contrary, he states that of the 8092 cases delivered in the hospital during his seven years' mastership, 752 were forceps cases; 49 mothers succumbed. In no one instance was injury inflicted by the instrument on the soft parts of the mother, and yet there were 33 instances where it was considered necessary to effect delivery before the os uteri was fully dilated. Of these 83 primiparæ, 75 mothers recovered, and 78 of the children lived. Of the pluriparæ 28 recovered.

Dr. J. Moore Madden, in a communication to the Obstetrical Society of Dublin, "On the History and Use of the Short Straight Forceps as a Tractor, and the Long Double Curved Forceps as a Compressor and Lever," records the result of his practice from the year 1868 to 1875, in which he employed forceps in 163 cases, 152 of the mothers recovering and 11 dying. In 17 instances the forceps was applied before full dilatation of the os uteri, 3 of the patients succumbing.

Dr. G. Hamilton, of Falkirk, in vol. xlviii of the 'British and Foreign Medico-Chirurgical Review' for October, 1871, contributes an article "On the Proper Management of Tedious Labours." His first series included 416 children delivered successively, not one of which was stillborn. The second series 731 with a like result. He further states that from 1860 up to September, 1871, and under the same management, in all his own practice, he had lost only one other child in a footling case, and in all the forceps cases not a single child. In the 731 cases referred to, there were 6 maternal deaths, but in only 3 of these was the forceps used, and of these 3 one died from disease of the heart, and another from asthma.

Dr. John Beatty, of Dublin, nearly fifty years ago, after having attended more than 5000 labours in private practice, stated that in no instance of the 111 cases in which the forceps was used did any unpleasant result follow. None of the mothers died, nor sustained any injury.

The point for our consideration is the highest rate of frequency of application of the forceps coincident with the lowest rate of mortality to mother and child. As long as the mortality diminishes *pari passu* with the more and more frequent use of the forceps, we are justified in going on. The difficulty is in determining the limit. There is, doubtless, a stage at which the employment of forceps is no longer justifiable. Dr. Barnes, in his 'Lectures on Obstetric Operations,' has tabulated a scheme of relation of operations to pelvic contractions, the labour being at term, ranging through forceps, turning, craniotomy, and cephalotripsy, to Cæsarian section, but as there is one unknown, at the same time very important factor, viz. the size of the fœtal head, experience alone can decide whether forceps should be employed. It is here that the art of midwifery needs to go hand in hand with the science of obstetrics.

In the 'Dublin Medical Journal' for January 7th, 1872, Dr. Kidd gives a very elaborate and instructive table, which exhibits the proportionate frequency with which the forceps was used, as well as the mortality among mothers and children in tedious and difficult labours, occurring in the Dublin Lying-in Hospital during the masterships of Joseph Clarke, Collins, Charles Johnson, Shekleton, and George Johnston.

This table demonstrates that the increasing employment of the forceps was followed by a diminishing mortality up to the mastership of Dr. Shekleton, when the forceps was resorted to in nearly 33 per cent. of the tedious and difficult labours, and when the mortality among cases of this class reached its minimum, viz. 6·03 per cent., in place of over 20 per cent. under Clarke, who only used the forceps in about 6 per cent. of the same cases. Dr. Geo. Johnston, in his first three years of office, had recourse to the forceps still more frequently,

employing them in over 75 per cent. of the tedious and difficult labours, but the mortality in the same description of cases was 1·35 per cent. greater than that of Dr. Shekleton. It is fair to add, however, that Dr. Johnston's infantile mortality was only 9·59 per cent., against 32·68 per cent. under Dr. Shekleton's practice, and 53 per cent. under Clarke. Hence, it would appear that the late master of the hospital, Dr. Geo. Johnston, effected a larger saving of infantile life among the cases of which we have been speaking than any of his predecessors in that institution, of whose practice we possess records.

Dr. Shekleton allowed 48·05 per cent. of his tedious and difficult cases to be delivered without assistance. Dr. Geo. Johnston only 20·30. Dr. Shekleton used the forceps in 32·69, Dr. Geo. Johnston in 75·28 per cent. Dr. Shekleton used the perforator in 19·26 and Dr. Geo. Johnston in only 4·42 per cent. of his cases. Dr. Shekleton lost 6·03 per cent. of the mothers after tedious and difficult labour, Dr. Geo. Johnston 7·38.

In Dr. Shekleton's mastership there were 13,748 deliveries 220 forceps cases and 54 cases of perforation. In Dr. Geo. Johnston's mastership there were 8092 deliveries, and 752 forceps cases and 34 cases of perforation.

It is chiefly with reference to these cases of tedious and difficult labour, where the expulsive power is deficient or where there is slight disproportion between the fœtal head and the maternal pelvis, or flattening of the sacrum, that I am anxious to elicit the opinion of the Fellows as to the advisability of resorting to the timely application of forceps instead of allowing the patient to drift on into powerless labour. It is in these very cases that the lives saved by our interference, unlike what is effected in medicine in many other cases, are mostly the best of the progeny; it is generally the largest and most robust children that present the greatest difficulty in parturition.

These cases occur for the most part in primiparæ, and it is interesting to note that more than two thirds of Dr. Geo. Johnston's cases of forceps delivery were those of primi-

paræ. If we inquire carefully into these cases we shall find that the practitioner hesitates to apply forceps because the os uteri is not fully dilated, the pains becoming so feeble or the disproportion between the fœtal head and the maternal pelvis so marked as to interfere materially with the passage of the head; if the membranes should rupture early in the labour, as frequently happens, there is no adequate force to dilate the cervix uteri, although it may be so dilatable that when the feeble pains are supplemented by the traction of the forceps, and the resistance overcome, the os rapidly dilates and allows the head to pass without any difficulty, the labour being completed without danger, and the fœtal life preserved. The mode of effecting delivery with the forceps before the full dilatation of the os uteri was distinctly described by Smellie, in his treatise published in 1752, who says that, in stretching the os externum or internum, we ought to imitate nature, for in practice we find that when they are opened slowly and at intervals by the membranes or by the child's head, the parts are seldom inflamed or lacerated. We ought, therefore, when obliged to dilate those parts, to proceed in that slow and deliberate manner; and though upon the first trial they feel so rigid that one would imagine they could never yield or extend, yet, by stretching with the hand and resting at intervals, we can frequently overcome the greatest resistance. Dr. Geo. Johnston has demonstrated that forceps may, with safety to the mother and child, be applied by expert hands when the os is only one half or two fifths dilated. But its employment under these circumstances is quite exceptional, and can only be regarded as a resource of which a skilful operator may avail himself in cases of extreme urgency.

Dr. Barnes also asserts that often aid is imperiously indicated long before the os is fully dilated or an ear can be felt. If there be conjugate contraction, the head cannot descend enough to stretch the cervix; and in primiparæ the anterior or uterine valve remains capping the head down to the very floor of the pelvis.

As a general rule I would advise to interfere as little as

may be with the first stage of labour unless there are clear indications that nature is unequal to the task imposed upon her. This is far more frequent than is generally supposed. It arises among the very poor from insufficient food, overwork, and bad hygienic surroundings generally; in the artisan class from sedentary occupations and their indoor life; and among the middle and upper classes from inactivity, artificial habits of life, and other enervating customs. The general tone of the muscular system being thus deteriorated, very serious impairment of the parturient powers naturally ensues, and labour is completed with difficulty, if at all, by natural efforts. How often do we find cases where the labour progresses fairly during the first stage, the pains being regular and efficient, yet when the true expulsive or second stage arrives the uterine muscular fibres are so exhausted and irritable that the pains become more frequent and less defined, the intervals between them being scarcely marked, differing entirely from the natural periods of activity and complete rest. Symptoms of acute fatigue evidence themselves. The patient becomes anxious and irritable, thinks she ought to be assisted, and often gives vent to some querulous and ill-natured remarks upon the conduct of her medical attendant.

On examining we find the head presenting normally, probably well engaged in the pelvis, or resting even on the perinæum. Hour after hour passes and still no progress is made, the patient passing into powerless labour. The uterus, worn out by fruitless efforts at expulsion, fails to remain contracted when delivery is at length accomplished, and thus allows post-partum hæmorrhage to occur, which still further weakens the patient's powers. A clot readily forms in the interior of the uterus, which frequently gives rise to secondary hæmorrhage, or severe "after pains," in due course, decomposes and causes septic infection.

In other instances the prolonged pressure of the fœtal head in the maternal passages sets up pelvic cellulitis, which not unfrequently ends fatally or else causes much suffering and a very tedious convalescence. It is in such cases as these

that the employment of the forceps is imperatively called for, and that, not after long tedious hours of fruitless effort, but as soon as we see indications that nature is unequal to the task. The exact time at which the forceps may advantageously be interposed must depend a good deal upon the operator, the risk from the instrument being so much less with a good than with a bad operator. The former need not wait so long for a natural termination as the unskilful should do. Moreover, we should never forget that the practicability of using or applying the instrument is totally different and distinct from the advisability of doing so.

Many possibly will urge, give a good dose of *ergot*. To this I would object, as unscientific in theory and unsafe in practice. Ergot should never be given unless there is a fair and reasonable prospect of completing delivery within a short time. As Dr. Barnes has so well observed, "When you have given ergot you are likely to be in the position of Frankenstein, you have evoked a power which you cannot control. Ergotism, like strychnism, will run its course. If it act too long or too intensely, you cannot help it. The ergotic contraction of the uterus, when characteristically developed, resembles tetanus. The action of forceps is under our control; we can apply a little or as much pressure or traction as may be desirable, and can remit our efforts should we see cause to do so."

Dr. Hugh Miller, in a letter to the 'Lancet,' January 13th, 1877, respecting the action of ergot in tedious labour, says, at the onset of general exhaustion of the patient, he finds it safer for both mother and child to apply the forceps and effect the delivery by their aid.

Dr. J. Langdon Down, in his paper, a few months since read before this Society, "On the Obstetrical Aspects of Idiocy," concludes that where the labour has been very tedious and prolonged, the delay interferes unquestionably with the integrity of the cranial contents, and induces a condition perilous to the future mental health of the little one, the prolonged pressure in the maternal passages being far

more injurious than the skilled employment of artificial assistance by means of the forceps. In only 3 per cent. of his cases had forceps been employed, from which he concludes that their use is not an important factor in the production of brain disease.

Whilst urging a timely resort to forceps, I would wish it to be clearly understood that I regard it as an aid to labour, not to supplement, or rather replace, the natural efforts. The further the head is advanced in the pelvis, the easier is it delivered by instruments, for it is changed from a round to an oblong figure by being forced along by the labour pains. In many cases, where we have slight contraction of the pelvis, or a large fœtal head, there being in any case disproportion between the capacity of the one and the bulk of the other, a process of moulding goes on which unquestionably facilitates delivery, so that at an early stage of labour, we should have decided upon craniotomy where subsequently forceps succeed.

Dr. Playfair has very properly called attention to the difference between the high and low forceps operation, and rightly asserts that, because the two have been confused together, the use of the instrument is regarded by many with such unreasonable dread. When the head is arrested at the brim, or high in the pelvis, the application of the forceps is an operation requiring much dexterity for its proper performance, and must never be undertaken without anxious consideration.

The question of version or the employment of long forceps in cases of moderately contracted pelvis is too vast to admit of my entering into it here, but it is an expedient that should not be overlooked. Men of our own time, such as Barnes, Braxton Hicks, and Goodell, have recorded cases where, having utterly failed to deliver with the forceps, after a full and patient trial, they have succeeded by turning in effecting delivery.

The great and chief advantage of turning in contracted pelvis seems to be this, that without any addition to the bulk of the head, and without any compressing force being applied

to it, other than that of the pelvis, an enormous tractive force, a *vis-a-fronte* can be brought to bear on the fœtus; and that, in addition to this, an external pressure, a *vis-a-tergo*, nearly equal to as much more, can also be made on the fœtal head within the uterus. Turning has this disadvantage, that if it fail, we cannot reverse our proceedings, whereas, if the forceps fail, it is not necessarily too late to resort to version.

To enter upon the relative advantages of the short straight forceps or the long double curved ones, although a question of much practical interest, would occupy more time than I feel justified in asking. In England the latter is almost invariably employed. In my own practice I seldom use any other, and I cannot recall to mind any case where I have failed in delivering the patient.

Dr. Geo. Johnston expresses himself as perfectly satisfied with the long forceps, inasmuch as he has proved it to be an instrument both safe, easy in its application, and most efficient in its powers of extraction, at the same time not compressing the child's head to any injurious extent. He regards it as perfectly available, whether the head be above the brim, in the brim, or in the cavity; in fact, he sees no necessity for using any other, as it can be introduced by one experienced in its application as easily, if not more so, than the straight variety in all cases. Dr. Barnes explains that the application of the long forceps is governed by a different law from that which governs the use of the short forceps. These latter must be applied with the blades quite, or nearly, over the transverse diameter of the head. But with the long forceps it is the pelvis that rules the application. The pelvic curve of the blades indicates that these must be adapted to the curve of the sacrum in order to reach the brim. They must therefore be passed as nearly as may be in the transverse diameter of the pelvis.

The forceps should not, as a rule, be employed where we have reason to believe the fœtus is dead. Craniotomy in these cases, if carefully performed, diminishes the maternal risks and should be resorted to, provided the evidence of

death is certain. This, however, is a very difficult matter to determine. Children have frequently been born alive or resuscitated after pulsation in the cord had ceased, the meconium escaped, and the pulsation of the fœtal heart no longer audible with the stethoscope.

The only reliable evidence is the great mobility and crackling of the cranial bones, where the child is at full term, the caput succedaneum falling into loose skin folds, the coming away of the epidermis and hairs, and the absence of pulsation in the funis when this prolapses.

Smellie directs the operator to pull the head along from side to side, or from one ear of the child to another. This oscillatory or swinging motion has been recommended by most writers on the use of the forceps since the days of Smellie. Dr. Matthews Duncan has recently published his views on this subject, wherein he is strongly opposed to this leverage or pendulum-like movement of the forceps, considering it to be useless and injurious.

Dr. Barnes believes pure traction to be almost impossible, and is equally certain that a gentle and careful leverage enables us to deliver with a great economy of force and time, which means, of course, greater safety to the mother.

M'Clintock confirms this view, his own experience and reflection leading him to believe that the movement in question, when executed with moderation and gentleness, is calculated to favour the advance of the head.

In my own practice I almost invariably resort to this expedient, and have often succeeded in effecting delivery where efforts at pure traction alone had failed.

The main object to be attained by the employment of the forceps have been well summed up by Churchill under four heads, which we shall do well to bear in mind.

1st. To facilitate delivery when its progress is arrested by certain malpositions of the head, at the brim, or in the cavity of the pelvis.

2nd. To supply the want of uterine action or to render it effective for the expulsion of the child.

3rd. To save the mother from the evil consequences of a labour too prolonged, and from the necessity of a severer operation.

4th. To save the life of the child, or at least to afford it a chance of escape from certain destruction.

Conclusions.

1. The application of forceps at the brim, the so-called high operation, should be carefully distinguished from the low operation, where forceps is employed to supplement feeble uterine action, or defect in the mechanism of parturition.

2. Forceps may with safety to both mother and child be employed in many instances where the os uteri is not yet fully dilated, but, as a general rule, forceps are not required in cases of tedious and difficult labour simply, before the completion of the first stage of labour.

3. Where, however, the first stage is very prolonged, from early rupture of the membranes or from inefficiency of the uterine action, and the patient's powers are being exhausted, forceps should be applied without further delay, as an aid to parturition and not as a *dernier ressort.*

4. Forceps should be preferred to ergot where the uterus has been allowed to pass into a state of inertia.

5. As a general rule forceps should not be employed to complete delivery, where we have good grounds for believing the child to be dead, in those cases where the head is firmly impacted in the pelvis.

6. Statistics show that a resort to the application of forceps, even as frequent as 1 in 10, diminishes the dangers of parturition to both mother and child.

Dr. Ashburton Thompson thought that the numerical method could not be applied to settle this question, nor could the result of personal practice. Different practices offered different percentages of forceps delivery. Occupation would give rise to such deficiencies. The causes of difficult labour were not uniform.

The forceps had recently been used much more frequently than in former times; he thought that difficult labours had not increased in proportion.

Dr. Cleveland said that, having frequently used forceps of late years in private practice, he wished to bear testimony to the satisfactory results afforded by the instrument, and express his belief that in judicious hands it was capable of still further development. Nor did he think, as the cases he was about to adduce would show, that a failure with it in the hands of some to effect delivery was a reason why others should not give it a trial with success. He refrained from mentioning cases of which he had had charge from the commencement, and where, perhaps, the benefit of the operation might not be so apparent, because he had made it a rule not to defer delivery after the arrest could be satisfactorily determined, but drew attention to others which he had seen in consultation, where, after long labours, attempts to deliver had been made without avail, and yet in which he had had the good fortune to effect the birth of living children. He also notably referred to the case of a primipara, who had been in labour two days and three nights, with the arrest high up, and in which the medical attendant, believing the child was dead, strongly urged the performance of craniotomy. Yet here, after some trouble and readjustment of the forceps, it proved equal to the delivery of a living child. Dr. Cleveland believed that however valuable statistics on a large scale in lying-in hospitals may be, still in private practice we shall be mainly guided in the use of the instrument by individual experience.

Dr. Aveling believed the determination of the questions how often and when forceps should be used, must for the present be decided by personal experience and not by statistics or the relation of individual cases. A scientific rule of practice might some day be obtained, when ready methods had been found of measuring the expulsive force of the uterus and abdominal muscles, the dimensions of the fœtal head and pelvis, and the resistance of the soft structures.

Dr. Playfair said that it was impossible to over-estimate the practical importance of a paper like Dr. Edis's. Nothing seemed to him more remarkable in the history of British midwifery than that, in the country which enjoyed the glory of having invented the truly conservative instrument, the forceps, its use should have been for so long looked upon with dread, while its alternative, the murderous perforator, should, until a comparatively recent period, have been used with a frequency which was perfectly appalling. This statement was perfectly justified by the fact, that in one of our leading schools of midwifery, the Rotunda Hospital at Dublin, at a time within the memory of living men, the forceps were never once used in 21,000 cases; and when he

had endeavoured to ascertain how often, in the same series of cases, craniotomy had been performed, he had learnt that it had never even been thought necessary to keep a record of their number. He had more than once trespassed on the patience of the Society by insisting on the value of the forceps in protracted labour, and he feared he had with some gained for himself the reputation, which he trusted was unmerited, of recommending their use with a frequency which was likely to lead to rash and hazardous practice. He could not but fear that his friend Dr. Priestley, in his late excellent valedictory address, had him in his mind when he talked of the dangerous practices which some Fellows of the Society recommended; and, as there was no one whose opinion he valued more highly, he should like to endeavour to show that his views had some good foundation. Moreover, he was, he believed, the first author of a systematic treatise on midwifery, who had deliberately inculcated a frequent use of the forceps in lingering labour, and he was quite aware of the responsibility he had taken on himself in so doing, which was not assumed without mature reflection, and a conviction that his views were sound. And first he should like to reiterate, what he had often done before, that he only recommended a frequent use of the forceps when the head was delayed low down in the pelvic cavity, by simple uterine inertia, and when only a slight *vis a fronte* was required to supplement the deficient *vis a tergo*. The high forceps operation when the head was at the brim of the pelvis, all cases of deformity, and cases in which the cervix was not fully dilated, were in an entirely different category. The operation then required much dexterity, was by no means free from risk, and should never be attempted except on the most urgent necessity. Whereas the low forceps operation, when the head was on the perinæum, was perfectly simple, devoid of danger, and might easily be performed by any ordinarily instructed practitioner. This disclaimer was even all the more necessary, because whenever the question was discussed, some one was sure to dilate on the risks of applying the forceps within the cervix, or high in the pelvis, which really had nothing to do with the question at issue. The first question was, what advantages are to be gained by a more frequent resort to the forceps than has been customary? One is the saving of suffering to the mother, and the shortening of the labour. Surely it was no slight gain to save suffering women many hours of fruitless labour, and of an agony, the intensity of which no man could perfectly appreciate, if it could be done with perfect ease and safety to herself? Moreover, he felt sure that patients made a better recovery, and were much less exposed to puerperal risks, when they had not been subjected to the prostration accompanying many hours of fruitless labour. But the strongest argument in favour of a

more frequent use of the forceps to his mind, was the great saving of infantile mortality it produced. We were all too much in the habit of forgetting, that we were responsible for the life of the child as well as of the mother, and Meigs was perfectly right when he called his forceps "the child's instrument." He had formerly alluded to the remarkable results attending the practice of Dr. Hamilton, of Falkirk, and need not again do so. Only yesterday Dr. Galabin had been good enough to send him the results of the Guy's Hospital Lying-in Charity for twelve years; and if he quoted it, it was because the very name conveyed the assurance of the cases having been conducted on the most approved principles. In this he found the following sentence: "With regard to the mortality among the children, it is probable that some might have been saved by an earlier application of instruments; but a general mortality of 4·08 per cent., one of only 2·7 per cent. in vertex presentations, seems not unsatisfactory." Now he had just looked over his own cases, and found that he had attended 400 consecutive vertex presentations, with only one stillbirth, and that of a syphilitic seven months' fœtus, which he need not count. If, then, in his own limited practice, he could claim to have saved eight human lives that would have been sacrificed if he had used the forceps as seldom as in the Guy's Charity, surely that, of itself, would have been an ample justification of his views, especially as he could not recall a single case where any harm had resulted from interference. As, however, one case might often prove more instructive than any amount of assertion, he would direct the attention of the Society to an example of what might be called "ultra-conservative" practice of historical interest, and conducted by the first obstetric talent of the day, and which was, moreover, a fair example of the practice of the old school, and he would leave the Fellows to judge whether it or the "ultra-liberal" practice, if they chose to call it so, was likely to be most disastrous to the victim and child. It was that of the Princess Charlotte of Wales, as related by Dr. Sims, one of her attendants, and by Baron Stockman in his 'Memoirs.' She was taken ill on Monday afternoon, and the membranes ruptured that evening. The labour must have progressed fairly well all Monday night, for we learn from Baron Stockman that on the Tuesday morning the birth of the child was momentarily expected. It is obvious, therefore, that by this time the head must have been on the perinæum, or an immediate termination of the labour could not have been anticipated. Nothing whatever was done, and the unfortunate princess was allowed to drag on all Tuesday and Tuesday night, and on Wednesday morning Dr. Sims says, "There never was room to entertain a question about the use of instruments." Still the labour was allowed to progress, until, at 6 p.m. on Wednesday

morning, the discharge became of a green colour, which led to a suspicion that the child might be dead. "Still the giving of assistance was quite out of the question!" The child was born without artificial assistance at 9 p.m.; that is to say, this poor lady was actually left in labour fifty-two hours after the discharge of the liquor amnii, and about forty hours after the head was on the perineum. Can any reasonable man doubt, that both the life of the princess and of her child were sacrificed to an unfounded dread of the forceps; and that, if they had been applied hours and hours before, say on the Tuesday, both might have been saved, and the whole course of British history altered? There only remains to say a few words as to whether there are any dangers attending a more frequent use of the forceps, which might outweigh these advantages. Dr. Priestley said there were, but he brought forward only one argument in support of this assertion; and that was, that Mr. Pollock had told him that, of late years, he had had more operations for ruptured perinæum, than had formerly been the case. It might, perhaps, fairly be argued, that Mr. Pollock's good fortune was to be attributed to his increasing reputation as a surgeon, rather than to an increased number of ruptured perinæums; but even if, for the sake of argument, it be admitted that the increased use of the forceps leads more frequently than formerly to laceration of the perinæum, it would be a somewhat curious arithmetical problem to work out how many ruptured perinæums it would take to counterbalance the loss of a single human life, even although it be that of an infant? Against this objection also might fairly be weighed the diminution in the number of cases of vesico-vaginal fistula. No obstetrician would deny, that that terrible accident, in the vast majority of cases, depended on protracted second stage, and prolonged pressure of the head on the vaginal walls. He would put it to any hospital physician, whether it were not the case that, within the last fifteen or twenty years, since instrumental delivery was earlier resorted to, cases of this kind had not become much rarer than formerly. Of course, he would admit that the forceps, in the hands of an ignorant blunderer, might do harm. But such an argument would equally prevent the use of the catheter, or any other surgical procedure. His arguments, of course, assumed a fair knowledge of his business on the part of the operator. In spite, therefore, of these objections, he maintained that delivery by the forceps, when the head was low in the pelvic cavity, and when the practitioner had a fair knowledge of his profession, was a far more truly conservative practice, both to the mother and child, than that which was prevalent some twenty years ago, when instrumental delivery was rarely, if ever used, except as a last resource.

Dr. Galabin said, that he thought that the statistics of

Dr. Kidd, based on the number of deaths after protracted labours, were unreliable, since there could be no local criterion when a labour should be considered protracted, especially when the observers were not the same. A comparison with the earlier records of the Rotunda Hospital gave a different result. The mortality in Dr. Johnston's mastership, namely, 21·6 per 1000, was more than half as large again as that from the foundation of the hospital in 1745 up to 1853, which was only 12·1 per 1000. In 88 cases within three years, in which forceps were applied before full dilatation of the os, simply on account of premature rupture of the membranes, there were 4 deaths, a mortality of no less than 46·6 per 1000. It was therefore at least not yet proved that such a use of forceps was free from risk. In the Guy's Hospital Charity, out of 23,591 deliveries in twelve years, the forceps cases were only 5·2 per 1000, the maternal deaths only 4·4 per 1000, of which only 0·8 per 1000 occurred after protracted labour. The children stillborn were 4·06 per cent., those stillborn with a vertex presentation 2·7 per cent. of which only about one seventh were decomposed or premature. He had always supposed that most of these children were sacrificed on account of the rule that forceps should not be applied without sending for the assistant obstetric physician, but a comparison with the neighbouring charity of St. Thomas's made this conclusion doubtful. Forceps were there used about ten times as often, but the ratio of stillbirths was almost exactly the same, the slight difference being in favour of Guy's.

Dr. Fitzpatrick said, I am sure, sir, it will be no exaggeration to say that many, not only in this room, but throughout the profession generally, look forward with avidity to the result of this discussion, and await an authoritative expression of opinion from this Society on the important subject of the use of the forceps. Such a discussion is, to my mind, very much called for; and I think the working members of our profession in the country, and throughout the world, are entitled to know in what estimation the forceps is held by those who constitute the Obstetrical Society of London. The statistics of the Rotunda Lying-in Hospital have been referred to, and having been myself a pupil of that institution, I am familiar with its traditions. Our teachers there dowered us with the forceps as an important aid in the practice of midwifery, but they weighted the instrument with so many oppressive restrictions and conditions as served, in my opinion, materially to diminish the value of the gift. The best text books on midwifery seem to me to be open to the same imputation, and their authors, one and all, look askance at the forceps, and speak of its use in language of distrust and suspicion. For proof of this I need refer only to the work of Ramsbotham; but even in the classical and very recent system of midwifery by Leishman, the

application of the forceps is described in terms that will be found to be deterrent rather than encouraging. The reasons for this attitude towards the forceps on the part of teachers and writers are remote and historical, and cannot well be touched upon here; and I think much credit is due to Dr. Playfair, for having in his recent lectures so boldly cleared the ground of the difficulties that are supposed to surround the use of this invaluable instrument. In my opinion one of the current, though most venerable objections to the use of the forceps reposes on a fallacy which I look to the discussion this evening in some measure to dissipate. We are perpetually being told that we must not interfere with nature, and nature is supposed to preside in some special and peculiar manner over the final act of generation. But nature's object in this matter and ours are not one and the same; her views are not concentrated upon an individual birth, but are coextensive with the widest interests of the whole race; it is not her aim to assist a feeble mother to produce feeble offspring, but, on the contrary, it is her stern purpose to repress all such additions to the human stock. Our rôle on the other hand places us in antagonism to those destructive propensities of nature; the voice of humanity, and of modern sentiment, bids us save life wherever we are able, and I think that, in carrying on this somewhat unequal conflict, we possess an indispensable adjunct in the skilful and judicious use of the forceps.

Dr. Parr remarked, that however skilful in the use of the forceps a gentleman might be who related 400 and 700 consecutive cases without the loss of a single child, he certainly was very fortunate. Dr. Parr in less than 400 cases had four children stillborn from (two) mothers suffering from syphilis. Not one of these labours exceeded three hours in duration. In a fifth case the labour was so rapid that the child was born as Dr. Parr entered the room, yet the child was born dead, suffocated by the short cord which was tightly drawn round the neck. Artificial respiration did not restore animation. No care could exclude such cases, and no doubt the experience of the Fellows could much extend the lists.

Dr. Daly said that perhaps he might be accused of too frequently using forceps, but the statistics of several years justified his practice. Taking the last 800 cases he had attended, and of which he had careful notes, he found that he had used forceps in 80 cases, or 10 per cent. of the deliveries. The instrument used being always Barnes' long forceps, and the instrument was applied in 50 of the 80 cases, when the head was in the true pelvis, or on the perinæum, and in 30 when the head was above or in the brim. Of the entire 800 cases, 4 died; of the 80 forceps cases, 2 died, 1 was dying when called to, of accidental

hæmorrhage; it was the seventh labour, the os was almost fully dilated, the forceps completed delivery in a few minutes, but post partum hæmorrhage continued, and the patient died in two hours. The other fatal forceps case died of puerperal fever; the head was on the perinæum when the instrument was used, and there was no laceration. In the 800 cases there was 1 case of pelvic cellulitis, ending in abscess; it was a forceps case, the patient recovered. There were 10 stillbirths, 2 being forceps cases. Laceration of the perinæum occurred more frequently in first cases, when the forceps was *not* used; and under any circumstances a slight laceration was believed to be of much more frequent occurrence in primiparæ than was usually thought. Obstetricians who asserted that they seldom if ever met with a laceration, probably had not examined for it. In the 800 cases, and in about as many more attended but not included, as accurate notes had not been kept of them, craniotomy was never resorted to, and this result was contrasted with a five years' experience, when a pupil in Ireland, in a country district, nearly twenty years ago. During those five years the forceps were not once applied, but craniotomy was resorted to five times in cases of extreme exhaustion, and in every case with a fatal result to the mother. The use of forceps in 10 per cent. of deliveries may seem large, but only 4 deaths in 800 consecutive cases justified the practice.

Dr. Poole thought that help might be given by other than instrumental means, viz. by well directed external pressure. He had used the forceps much less lately than formerly.

Dr. Roper remarked, that all cases which seriously called for the use of forceps, should be excluded from the class of cases under consideration. The point for discussion was the frequent application of forceps in lingering, tedious, and laborious labours, which were otherwise natural. He could not see the desirability of that frequent use of the forceps which was becoming again a common practice. In his own practice he had remembered the dictum of the late Dr. D. D. Davies, in his excellent work, 'Elements of Operative Midwifery,' that "The first and most important indication for the use of obstetric instruments of any kind, is a positive and well-ascertained insufficience of the natural powers to accomplish the act of parturition with safety to the lives and structures implicated in the process." He had never applied forceps without recognising the importance of this advice. Indications of danger to the lives and structures of mother and child in lingering and tedious labours existed only with extreme rarity, and in laborious and painful labours connected with rigidity of the os uteri in the first stage of labour and with rigidity of the perinæal structures in the second stage, there was an absence of that condition of danger, viz. impaction. Obstruction

and seeming arrest might take place, but not impaction. Forceps might be applied to an almost unlimited extent in such cases, but little skill was required in their use, and the children thus delivered ought to be alive; fœtal life in such cases has never been in risk. The obstruction caused by a rigid os uteri and a rigid perinæum slowly and naturally gives way; we may not be able to mark the progress of the head with each pain, but there is one indication which always contraindicates the use of forceps, viz. the retrogression of the head on cessation of uterine pain. The head retreats into the relaxed uterus, and both maternal and fœtal structures are for a time relieved from injurious pressure. In a laborious labour it is only when uterine power is exhausted, that rhythmic action of the uterus ceases, and becomes one of persistent, unremitting contraction, and then immediate delivery is indicated. Such cases of uterine exhaustion caused by rigidity of os uteri or perinæum, as an obstruction, are scarcely ever seen. The assertion that children are frequently born dead from delay in these classes of labour, and that fœtal mortality is greatly reduced by the frequent use of forceps, seems not to be encouraging if statistics are carefully looked into. The report of the Rotunda Hospital, Dublin, for 1875, says, out of 1025 deliveries, forceps were applied 113 times, or about 1 in 9. That of the 113 children 11 were born dead, 102 alive. In reference to this result the report says, "102 children saved, who, in all probability, would have been lost if left to natural efforts." This inference, however, can hardly be received as a sound one. In Dr. Hamilton's oft-quoted success of delivering 300 patients without the loss of a single child, a success said to be due to the use of forceps once in every seven cases, it seems hitherto to have escaped observation, that in his computation he excludes all children which were known to have been dead before the forceps were applied. The number of these children was 8; hence, if his statistics are calculated after the mode of all other practitioners, his fœtal mortality is really about 1 in 37. For fœtal considerations this frequent use of the forceps seems not desirable. Turning to the maternal side of the question, Dr. Roper thought the application of forceps in the first stage of labour, where the os uteri was in diameter only $1\frac{5}{8}$ths of an inch, thin, rigid, and painful, from early discharge of the liq. amnii, was opposed to all propriety. This practice was frequently adopted at the Rotunda, Dublin. The report of this hospital for 1875:—"Of the 113 cases delivered with forceps within the year, there were 33 instances where we considered it necessary to effect delivery before the os uteri was fully dilated; and in 10 instances the os was nearly $\frac{2}{3}$ths dilated" ($\frac{2}{3}$ dilatation, indicate a diameter of $\frac{1}{3}$th of an inch). The maternal deaths were at the rate of about 1 in 39. Dr. Roper's own experience

of the last two years, as connected with the eastern division of the Royal Maternity Charity, is as follows:—1875, 2120 deliveries; forceps used in 19 cases = about 1 in 111 cases; stillbirths from whatever cause 48 = about 1 in 45; maternal deaths 4 = 1 in 530. 1876, deliveries 2257; forceps used in 21 cases = about 1 in 107 cases; stillbirths from whatever cause 73 = nearly 1 in 30; maternal deaths 6 = about 1 in 376. Of the 40 forceps cases in the two years, the instruments were used (with the exception of about 3 cases) in consequence of a malposition of the head, and arrest or impaction in the cavity of the pelvis, or from arrest or impaction of the head in a deformed pelvic brim.

Dr. Rogers reminded the Fellows that labour was a natural law, and should terminate safely both for mother and child, as in the vast majority of births it did, without requiring the use of instruments. Dr. Rogers well knew they were required in many cases, and had been obliged to use them himself, but in nothing like the percentage that had been mentioned to-night, once in every six or even once in every twenty-five cases. He had not read Dr. Playfair's book, but his remarks to-night would lead many to use the forceps more frequently than might be really needed. Gentlemen having large practices, and being wanted elsewhere, may be induced to use it in almost every case of what, under such circumstances, they would call tedious labour. Dr. Rogers had been formerly physician's assistant to Dr. D. D. Davies, who did not advocate meddlesome midwifery, though he himself had invented instruments to terminate labour in difficult cases. Having attended nearly 4000 cases in public and private practice, being physician to several midwifery charities, he believed he had not used the forceps in more than 1 or 2 per cent., and his percentage of stillbirths had been very small. Dr. Rogers had never seen midwifery practice in Dublin; but a friend, an Irish physician, had informed him, the average Irish infant's head was larger than the English, and the sutures did not as easily give and overlap, or the head become as easily compressed, which would account for the greater infant mortality, and the necessity for more frequent use of forceps; and, from the debate to-night, he thought the younger members of the profession might run into a course of meddlesome midwifery fraught with danger both to mother and child. He was not an advocate for needless delay, and well knew how danger might be averted by judicious and timely use of instruments; but he warned the Society not to advocate such free use of the forceps as some Fellows had mentioned to-night, as he considered it would seriously and widely affect the practice of the profession.

Dr. Wallace.—I think, Mr. President, that if some exposition of opinion as to the length of time one should wait after

impaction or arrest before applying the forceps, went forth from this Society, it would be of great value. In my own practice I wait two hours, rarely longer; and in a series of 800 cases attended in the last two years, I have applied the forceps 26 times, or about once in 30 cases. Amongst the forceps deliveries there was 1 maternal death, occurring 16 days afterwards of septicæmia, and 1 stillborn child.

Dr. Graily Hewitt believed it impossible to lay down a hard-and-fast line in regard to the employment of the forceps. To employ the forceps education and a certain degree of mechanical aptitude were required, and this mechanical aptitude was undoubtedly absent in some instances. Hence a timidity and hesitation to employ the instrument on the part of some; others, finding the operation simple and easy, would naturally employ this method of delivering their patients more frequently. His view as to the experiences of the employment of the forceps was practically the same as Dr. Playfair's; that is to say, considering the cases of the *low* operation, the *high* operation was undoubtedly difficult and more dangerous. This distinction of forceps cases into "high" and "low" cases was Dr. McClintock's, and the distinction was a most important one to make. In regard to the supposed greater frequency of perineal laceration in forceps cases he would simply remark that, according to his experience, it was partly attributable to too great rapidity of extraction. It was not always sufficiently borne in mind that, whether the forceps be employed or not, the perinæum must be allowed time to expand. In other words, in extracting with the forceps, nature's method must be imitated. The importance of exercising traction in a forward direction he would not dwell upon, as that was sufficiently emphasised in the ordinary text-books.

APRIL 4TH, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

Present—49 Fellows and 1 visitor.

The minutes of the former meeting were read and confirmed.

Books were presented by Dr. Robert Battey, Dr. Sibley Campbell, Dr. Gaillard Thomas, Dr. A. Mattei, Mons. L. Tarnier, Prof. F. Rizzoli, and from St. Bartholomew's Hospital.

George Walker, M.R.C.S., was admitted a Fellow of the Society, and A. De Winter Baker, M.R.C.S. (Dawlish), and William Hoar, M.R.C.S. (Maidstone), were declared admitted.

The following gentlemen were elected Fellows of the Society: M. McWilliams Bradley M.B. (Jarrow-on-Tyne), William Eddowse, M.R.C.S, (Shrewsbury), H. W. Maunsell, M.D. (Melbourne), Robert Ostlere, M.B., Richard Paramore, M.R.C.S., and William Wigmore, M.R.C.S.

The following gentlemen were proposed for election:— Thomas Henry Barnes, M.D. (Croydon), Eustace J. Carver, M.R.C.S. (Fulham), John Dewar, L.R.C.P. Ed., Patrick Jamieson, M.A. Aberd. (Peterhead), J. Jardine Murray, F.R.C.S. Ed. (Brighton), and Jos. Cooke Verco, M.D.

CONGENITAL DEFORMITY.

Dr. Ashburton Thompson introduced two children congenitally deformed, and described the maternal impressions to which the deformities were attributed by the mothers.

C. J—, a girl, æt. 4½, showed two distinct deformities. She was seen to have a supernumerary pair of mammæ. Of the normal pair, which occupied the usual position, that on the left side was smaller than that on the right side. Two inches below the latter, in a perpendicular line, was seen one of the supernumerary mammæ; it was much smaller than the breast above it, but perfectly well formed. In the corresponding situation on the left side, was an indication only of the fourth mamma; there was a depression of the cutis, from the centre of which sprung a very small, rounded eminence. On the breasts being squeezed shortly after birth, a little milk-white secretion was obtained from the three first named. A model of this deformity was laid on the table. The same child showed a mark on the crown of her head, which had the appearance of a scar. It was about an inch in length by two or three lines in width, running a little diagonally from behind forward; it was depressed, the skin over it appeared condensed, white, and smooth, and it was devoid of hair or other follicles.

The impressions to which the mother ascribed these deformities were as follows. At the seventeenth week of pregnancy she accompanied a female friend, who had hurt her shoulder, to the hospital. The surgeon who dressed it observed something unusual about the patient's breast, and he examined it closely, putting her to some pain by his manipulations. On seeing this the mother felt sick; and to this impression she refers the supernumerary breasts. Four weeks afterwards, or at the twenty-first week of pregnancy, she accidentally saw a horse slaughtered with a pole-axe. To this she ascribed the appearance of a scar on the crown which her child showed at birth. Dr.

Thompson remarked, that, without offering any opinion upon the power of a maternal impression to cause a *corresponding* deformity—it being easy to understand that various causes affecting the mother, may interfere with the nutrition and growth of the fœtus, and so cause *a* deformity—this case was remarkable, if not unique, in that it showed two distinct deformities corresponding pretty closely with impressions received at two distinct periods of pregnancy, the dates of which were noted by the mother in anticipation of her delivery. In point of correspondence, however, he considered the next case, which was then introduced, as even more striking.

C. B—, a female, æt. three months, was born with the deformity of which the following was the appearance presented at that age. In the median line of the neck, about midway between the hyoid bone and the sternum, was a globular warty growth, about five lines in diameter, pedunculated, smooth, and vascular. On turning this growth up, immediately below the pedicle was seen the orifice of a small canal, about a line in diameter. It appeared to be lined with mucous membrane, and constantly exuded a little viscid amber-coloured fluid. It admitted a probe for three sixteenths of an inch, and its direction was in that way shown to be horizontal, and from before backwards towards the trachea, at right angles to the median line of the body. The mother said, that at the seventh month of pregnancy she opened her door to a hawker, who first of all alarmed her by making signs and noises instead of speaking. He then put his hand to his throat and spoke indistinctly, and showed her "a hole with a silver tube in it in his neck." There is no doubt, from this description, that the man wore a tracheotomy tube. The mother was much alarmed, in part by the man's manner, and in part by his deformity, and it was some time before she recovered herself. She did not at the time anticipate any corresponding deformation of her child; but she could not forget the impression made upon her by the sight of this person, and in that way is able to fix certainly the time at which the incident occurred. This, then, was

one of the cases in which the "cause" of deformity is recollected after the deformity is discovered. That does not, however, in Dr. Thompson's opinion, militate so strongly against the probability of "cause and effect" as it is generally taken to do. For instance, to anticipate from the moment of impression a corresponding deformity—or indeed any deformity at all—presupposes on the part of the mother knowledge of a certain kind which she might very easily be without. Again, without wishing to express any opinion on the matter, Dr. Thompson pointed out the very remarkable resemblance between the impression received and the deformity shown; and that the deformity itself was an unusual one. In conclusion, he said that possibly some opinion might be arrived at upon the reality of corresponding deformities if a number of such cases was examined by competent persons. Very often they are reported, but it is not very often that the opportunity of comparing the history with the deformity itself is afforded; and it was with a view of giving such an opportunity that he introduced these remarkable cases to the Society.

OPERATIONS FOR ATRESIA VAGINÆ AND VESICO-VAGINAL FISTULA.

Dr. Bozeman exhibited his instruments for the operations for atresia vaginæ and vesico-vaginal fistula. He began to treat these conditions in 1855. He first treated the atresia on principles similar to those adopted in the treatment of stricture of the urethra—dilatation and division. He advocated the use of the Hilton suture. He recommended dilatation of the vagina in all cases of difficulty. He employed dilators of hard and soft material; the former were made of vulcanite, the latter of sponge covered with oiled silk. Dr. Bozeman also showed a model of his chair for operating in the knee-elbow position.

The Report of the Sub-committee on Dr. Palfrey's specimen of a Two-headed Monster.

The specimen submitted to us for examination is a double monster of the di-cephalous type, *i.e.* one in which the bodies are united below, but the heads separate, and is, therefore, one of the rarest varieties of double monster. From the shoulders downwards the body has the appearance of a healthy child, and is not larger than that of many children at birth. There are two perfect and distinct heads and necks, springing from the upper part of the thorax. There are two normal arms attached to the common body in the usual position. At the point where the necks diverge from each other, and somewhat posteriorly, there is a third arm, obviously formed by the fusion of two arms, for the hand is double, having two thumbs, while the palms and fingers are partially fused together. Curiously enough there is no appearance of doubling of any part of the body below the shoulders. No dissection has yet been made, but through the opening in the abdominal walls for the purpose of admitting spirit, a single uterus can be seen, and the external genital organs are those of a healthy female child.

On investigating the probable mechanism of delivery, we observed that the inner surface of the right head was much flattened, from the vertex down to the inferior border of the lower maxilla, as if by the pressure and continuous descent of the left head. On placing the vertices on a level and parallel with each other, and compressing them with the utmost force we could employ, the measurement from the outer parietal protuberance of each somewhat exceeded six inches. Now as the largest diameter of the dried pelvis, exclusive of the soft parts, is only 5·2 inches, we are constrained to conclude that the two heads could not possibly have been delivered parallel and level with each other, and that there has been some mistake in the supposition that this was the case. We further observed that the heads could be most easily placed so that the left head lay on a lower

level than the right, the greater portion lying in the hollow formed by the neck of the right. We think it probable that the heads descended into the pelvis in this manner, the left being first expelled, and the right following so rapidly that the delivery of both seemed simultaneous. We found, moreover, that the two heads could readily be drawn in this way through the dried pelvis, which could not be done when the vertices were placed on the same level.

W. S. Playfair.
T. C. Hayes.

The Dissection of the Monstrosity.

Before describing the dissection it is necessary to note a few peculiarities in the external appearance. Two fully developed heads divided by an arm which arises between them. This arm is larger than normal, but only one humerus can be felt. Three bones in the forearm, one behind, two on the same level in front; two hands starting from the wrist, joined along their ulna sides to form one little finger; the next fingers are joined as far up as the bases of the terminal phalanges, where they divide; the bones are double throughout. The seat of the fingers and the thumbs are distinct.

The spines of the vertebræ form two distinct lines down the back, which may be traced from either head to the coccyx. The other two arms and legs are normal, as also are the external organs of generation, which are female. Having removed the skin from the front of the thorax and roots of the necks, the muscular fibres of the platysma are seen to be arranged in a peculiar manner, the fibres of one side decussating with those of the others over the root of the central arm, some fibres passing a considerable way down it. The sternum is normal, the clavicle of either side articulating with the manubrium in the ordinary manner. But at the top of the sternum, and attached to it by some fibrous tissue, is a piece of bone shaped like the manubrium, and

taking the place of one of the two clavicles supporting the central arm, and also giving origin to the sterno-mastoid, thyroid, and hyoid muscles, belonging to the respective sides of the heads, as may be well seen in the picture. The two clavicles, placed side by side about one inch and a half apart, pass back to articulate with two scapulars which are placed close together and joined at their inferior angles by cartilage. The two glenoid cavities form one socket for the head of the humerus. The muscles to this central arm are mostly double; but owing to the peculiar relative positions of the bones some of them, for instance, the pectorales major and teres muscles, are entirely absent. The two deltoids are well developed, and lying side by side, as seen in the picture. The muscles of the forearm are mostly double. There is one ulnar and two radii, two extensores carpi ulnaris, which are inserted close together into the base of the metacarpal bone, which take the place of fifth to both hands. The muscles of the thumbs are regular in number and position, a separate set to each thumb; there is no palmaris longus.

Before going on to describe the deeper dissection it is necessary to mention that the fœtus had been roughly eviscerated previous to examination, the spleen, intestines, part of the liver and diaphragm, having been torn away, leaving both œsophagi with cut ends, and the colon cut at its junction with the first part of the rectum.

On opening the thorax and pericardium two hearts are exposed lying side by side, the heart on the right side being turned round so as to bring its right auricle on the left side, close to that of the other heart. The cavities of the two right auricles communicate; the two superior and two inferior venæ cavæ joining to form a common trunk, and opening into both cavities. Each heart gives off an aorta, one turning down on the right side, the other on the left, as usual, each in front of their respective vertebral columns. They give off the usual branches to the heads and necks, the veins corresponding to form the two superior venæ cavæ. The two aortas, after passing behind the diaphragm, join on the second lumbar vertebra, to form one trunk, which, having

given off the inferior mesenteric artery and two or three lumbar arteries, again divides into the two iliacs.

The veins correspond, joining, after passing through the diaphragm, though one is larger than the other.

The other branches to the viscera come off from the nearest aorta, as the renal are given off one from each, the splenic from the left; the hepatic is made up of a branch from each, as also are the phrenic.

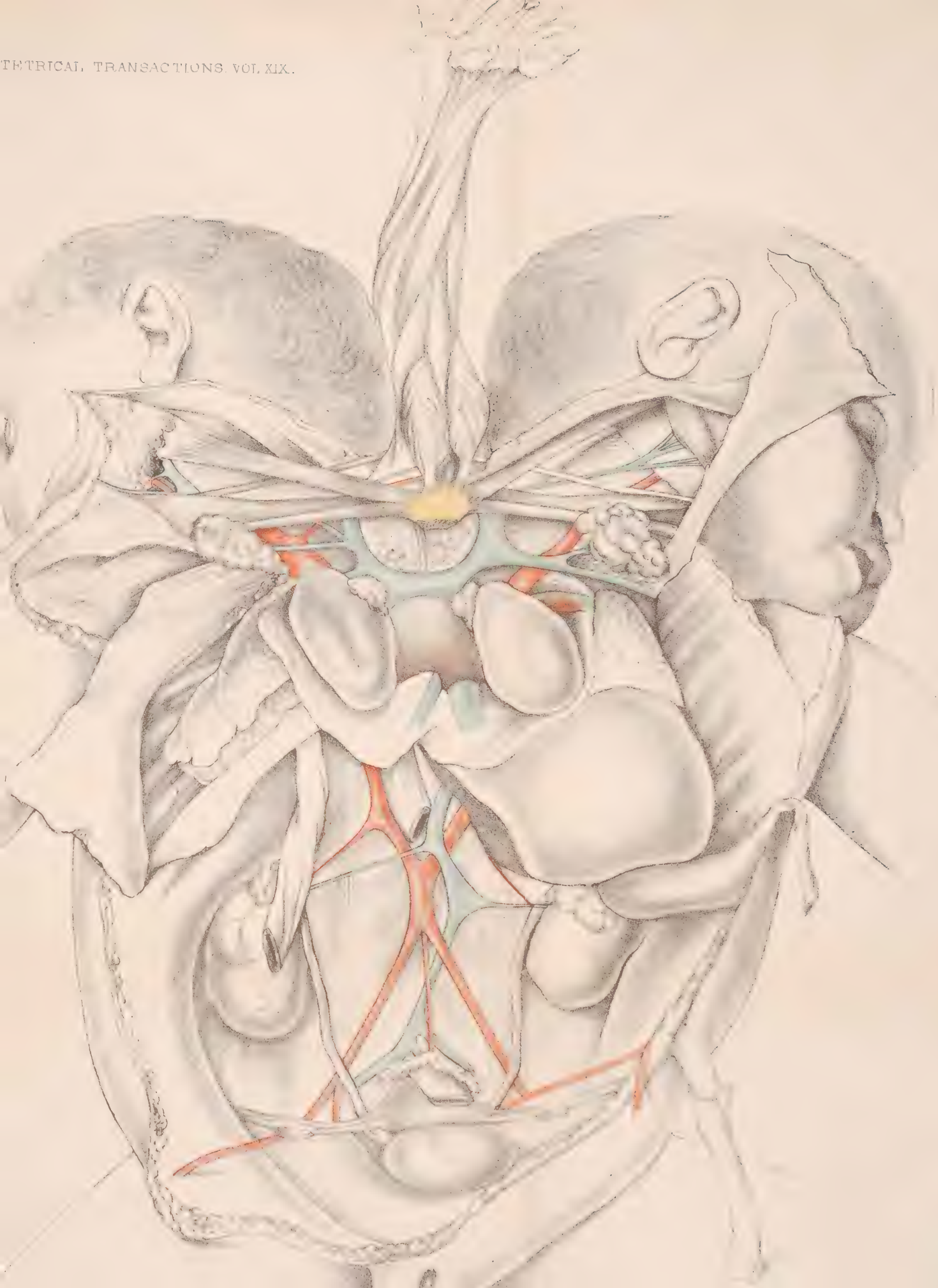
The ribs between the two vertebral colums are short and fused together into the shape of a bow, each end articulating like other ribs with the vertebra; this holds good of all except the first four, which are prolonged forward to a point underneath the bone at the top of the manubrium sterni, to which they have a fibrous attachment.

The lungs are four in number, two to each trachea. The two internal ones (smaller than the others) are contained in a cavity between the two vertebral columns, divided by a pleural septa between the first four ribs and the diaphragm.

The sacrum is a broad mass of bones with two rows of spines, a coccyx articulating on either side of it; the space between the two is bridged across by fibres of the levator ani muscle. The rest of the pelvis, though broader, is normal.—R. Brookes, Prosector, King's College, London.

Note by Dr. Westmacott.

The accompanying description of this double-headed monstrosity does not in several respects correspond with the Plate. It would have been quite impossible to have made it do so, as the parts were in such a mangled state that the drawing was obliged to be executed in a somewhat diagrammatic style, and the further dissection of the skeleton has not been represented. The platysma myoides is seen reflected over the left fœtal cheek, the muscles arising from the manubrium (the sternum being removed) have not been dissected quite to these insertions, the arterial and venous circulation have been coloured, also the clavicles and manu-



brium. The communication between the right auricles and the pulmonary artery of the left heart have been coloured purple. The liver was very much broken up, but a supposed clean section has been depicted to show the vessels and left œsophagus (cut) passing behind. The stomach of the left side is seen below the liver, and the cut end of the colon lying upon the uterus and bladder below. The hearts were contained in a single pericardium.

ON FIBROID TUMOUR COMPLICATING DELIVERY.

By W. S. Playfair, M.D., F.R.C.P.,
PHYSICIAN-ACCOUCHEUR TO H.I. AND R.H. THE DUCHESS OF EDINBURGH; PROFESSOR OF OBSTETRIC MEDICINE AT KING'S COLLEGE; AND EXAMINER IN MIDWIFERY TO THE UNIVERSITY OF LONDON.

Fibroid tumours of the uterus are so common in the unimpregnated state, that it is somewhat strange they should not be found more frequently complicating delivery than is actually the case. Probably this is to be explained by the fact that the existence of uterine fibroids, especially when encroaching on the cavity of the uterus, renders conception less likely to occur, or predisposes to abortion. Still instances are not uncommon in which fibroid masses of very considerable size are met with in pregnant women, and the influence of such on delivery must always cause anxiety to the accoucheur, and may even give rise to difficulties of the gravest possible kind. In a former communication to the Society, published in the ninth volume of our 'Transactions,' I analysed the histories of fifty-seven cases of ovarian tumour complicating labour. As a sequel to that paper it may, perhaps, prove of some interest, and lessen the anxieties of those who may chance to meet with cases of the kind, if I relate the particulars of three cases of labour complicated

with fibroid tumour that have come under my own observation. Two of these are examples of very considerable masses of fibroid producing little or no effect on the labour, and thus happily dispelling the fear that was entertained as to their issue; while the third is an instance of a tumour, the existence of which was not previously suspected, obstructing delivery in a very serious way.

1. Mrs. W—, æt. 34 years, first came under my observation in August, 1873, during the absence from town of our Honorary President, Dr. Arthur Farre, who asked me to take charge of her. Her history was that up to the year 1870 she had always enjoyed robust health. In May of that year she first observed a hard globular growth in the right ovarian region, which was diagnosed by a physician at Naples, where she was then residing, to be a uterine fibroid. This increased considerably during the ensuing year, but did not cause her any inconvenience, and she continued to lead a very active life—riding, walking, and driving as usual. Towards the beginning of 1872, she began to experience much more discomfort, and especially considerable difficulty in emptying the bladder, for which symptoms she came under the care of Dr. Farre and Mr. Spencer Wells, who found the pelvic cavity blocked up by a mass of fibroid, which pressed on the neck of the bladder, and so caused the difficulty in micturition. This at last became so troublesome that it was determined to make an effort to relieve her by dislodging the impacted tumour and pushing it out of the pelvic cavity. In October, 1872, she was deeply anæsthetised, and Dr. Farre, having passed his entire hand into the vagina, succeeded, but not without considerable difficulty, in pushing up the tumour. After this the bladder symptoms entirely passed away. The tumour now seems to have rapidly increased in size, no doubt because it was relieved from the pressure of the pelvic walls, which formerly retarded its growth. I have no accurate record of its dimensions, but the patient, who is a very intelligent person and was in the habit of watching herself, states that at this time

the top of the tumour was close under her ribs, so that it must have been of very considerable size.

In February, 1873, the lady married, against the advice of her medical advisers, and immediately fell into the family way. There was naturally much apprehension as to the result of her pregnancy. It progressed naturally, but as the gestation advanced, there was much discomfort and frequent attacks of severe pain. From the fifth month, up to the full time, she was compelled to remain entirely on her sofa, as the slightest movement brought on extreme pain. When she came under my care, in August, 1873, the abdomen was very largely distended, and several distinct fibroid masses, as large as cocoa nuts, could be felt projecting from the fundus, the most prominent being one on the left side. Per vaginam there was an isolated mass, the size of a large orange, to be felt immediately in front of the cervix, which seemed as if it might possibly cause some obstruction during labour; otherwise the pelvis was entirely clear, the bulk of the tumour being obviously subperitoneal.

I was present at this lady's labour, in conjunction with Dr. Farre. It took place on the 21st of November, and happily all the fears that had been felt with regard to it proved groundless. The pains commenced at 10 p.m., and everything went on in a perfectly natural way. The membranes ruptured at 10 p.m., and the child was born at midnight. The pains were regular and strong, and did not cause more than usual suffering. After the birth of the child great care was taken to ensure efficient uterine contraction by continuous pressure, and there was not the slightest hæmorrhage. There was, however, no tendency to relaxation, and, from first to last, the labour was absolutely normal, and there was no appearance of the labour being in any way interfered with by the presence of the tumours. Next day, when the abdominal parietes were still so lax as to admit of free palpation, I found that the contracted uterus, with the fibroid masses, measured exactly one foot from the fundus to the upper edge of the symphysis pubes, and the same transversely.

The sequel of this case is very interesting, as illustrating a subject I formerly brought under the notice of the Society in a paper on "the Spontaneous Absorption of Fibroid Tumours of the Uterus," which was published in the tenth volume of our 'Transactions.' I there collected numerous cases, from various sources, in which fibroid tumours of considerable size had been completely absorbed, and I recorded two cases of a similar character which had come under my own observation. That paper caused a somewhat lively discussion, and several Fellows contended that I must have made an erroneous diagnosis, and mistaken some other condition for fibroid. The possibility of such absorption is, I take it, now beyond question, for numerous incontestable examples have, since that date, been recorded by such experienced gynæcologists as Matthews Duncan, Spiegelberg, Gaillard Thomas, and others; and to suppose that their cases are all unreliable and wrongly diagnosed is an obvious absurdity. I suggested as an explanation of so remarkable a circumstance that the "atrophy may depend on causes similar to those which affect the diminution in bulk of the uterine tissue itself when it has been hypertrophied during pregnancy, and that we know to be by a process of fatty degeneration of its fibres," and, further on, I added, "Another condition which would seem to favour absorption is the natural involution of the uterus after delivery. If the theory above stated be true, there could be no circumstances under which it would be more likely to happen, since the removal of the tumour would then be effected by an exaggeration of the changes naturally going on in the uterus. Accurate observation on the effect of delivery in cases of uterine fibroid would be interesting in reference to this point."

The above was written four years before this case occurred, the sequel to which remarkably corroborates what was then said, for Mrs. W— called on me some six months after her confinement, and to my profound surprise I found the enormous fibroid masses, felt so plainly after her delivery, could not be made out at all, and that her uterus was hardly above its normal size, with only one or two small nodules which could

be made out on careful bimanual examination. Here, at least, it will be granted that error of diagnosis was impossible, and that during the involution following delivery the fibroids had shared in the absorption affecting the hypertrophied uterine tissue, and so had disappeared. Nor does the history of the case end here. Shortly after this the lady went to China, and soon after her arrival there found that a tumour was again showing itself above the pelvic brim. She now became pregnant a second time, and returned to England for her confinement, in which I attended her in January, 1876. I found a single fibroid outgrowth on the left side of the fundus, about the size of a lemon. Her labour was easy, and her recovery good. This time, however, the tumour has not diminished after delivery, for I saw her a few weeks ago, and found a tumour about the size of a full-sized lemon, cropping up above the pelvic brim, on the left side, and another, somewhat smaller, on the posterior surface of the uterus, in Douglas's space, but these are marvellously different from the large masses which existed before her first pregnancy.

I trust that the interest of the subject, and the doubt that was cast on my former cases, may be sufficient excuse for this digression from the subject of my communication.

The next case is also one in which a considerable fibroid mass was fortunately found to have no bad effect on the progress of the labour. This lady was a patient of Dr. Macrae, of Westbourne Terrace, who asked me to be present at her confinement, in case any complication arose. I found two large globular fibroid masses, each about the size of a cocoa nut, growing from the fundus and sides of the uterus.

The labour began about 8 a.m. on July 3rd, 1875, the head presenting. There was no delay in the first stage, but after the head had passed into the pelvis the pains fell off and became very feeble and infrequent. Eventually I applied the forceps, and delivered the patient of a living child. The uterus contracted firmly, and there was no post-partum hæmorrhage.

In this instance, although the tumours were of less size than in the former case, the efficient action of the uterus seems to have been interfered with, and artificial delivery was required. There was, however, no material difference between this and an ordinary case of powerless labour, such as often occurs in a perfectly healthy uterus. It is to be noted as encouraging in dealing with such cases that in neither of them was there any tendency whatever to post-partum hæmorrhage, which is the complication one would naturally fear. Nor does this seem to have occurred in the recorded cases of the complications. Three cases are to be found in our 'Transactions,' by Drs. Madge and Copeman, in none of which was hæmorrhage met with, and out of twenty-six cases collected by Magdelaine, in his thesis on this subject, this does not seem to have been noticed as a cause of danger. I have only, however, seen a résumé of this paper in the 'Archives Générales de Médecine' for 1871, and have been unable to procure the original, so that I may possibly be wrong on this point. In one case recorded by Goodell, in a recent number of the 'American Journal of Obstetrics,' this complication occurred. No doubt the immunity from hæmorrhage depends on the subperitoneal position in which the tumours were found in almost all the recorded cases. It is natural to suppose that hæmorrhage would be worst in the submucous variety of fibroid—that in which it is so common a symptom in the non-pregnant state—but when a tumour is so placed it must encroach, more or less, on the cavity of the uterus, and it is probable that it would, on that account, either prevent conception, or not admit of gestation proceeding to term. At any rate the submucous variety of fibroid seems to have been rarely met with as a complication of actual labour.

Since writing the above it struck me that it would be interesting to learn if the tumour in this case had experienced any change since delivery, similar to that recorded in the first. As I had not seen the lady since her confinement, I wrote Dr. Macrae, her ordinary medical attendant, and I append his reply, which seems to me very interesting, as

corroborating what I have said as to the possibility of these growths diminishing as a consequence of involution after delivery.

119, Westbourne Terrace,
Hyde Park;
30th January, 1876.

My dear Dr. Playfair,

I deferred answering your letter until I should have had an opportunity of examining the lady of whom you enquire. I had not questioned her about the tumours since her confinement, as she had been in good health and made no complaint. Yesterday, however, I questioned her, and the result of the examination I made was to support your views, as it was only with difficulty and doubtfully I could detect any tumour at all. I was more than surprised, as you know how large they were previous to her confinement.

I am, yours very truly,
A. C. Macrae.

The third case is an example of labour obstructed by the position of the fibroid growth, and is a good example of the serious difficulties to which such a complication may give rise.

On the 14th of January, at 8 p.m., Mr. Burton, of Blackheath, called to request me to accompany him to Charlton, to a lady who was under the care of his brother, Mr. J. S. Burton, in whom he informed me that delivery was prevented by a tumour, which he anticipated might prove so great an obstruction as possibly to lead to the performance of the Cæsarean section. On arrival I found that this lady had previously given birth to five children without any difficulty, but that upwards of five years had elapsed since her last pregnancy. During this interval her health had been fairly good, except that for the last two years she had had a tendency to menorrhagia. This, however, does not seem to have been excessive, at any rate it did not lead to her seeking medical advice. She was now at the full period of pregnancy, and her labour had commenced at 1 p.m. on

the day on which I saw her. Mr. J. S. Burton was sent for about 4 p.m., found the membranes ruptured, and at once detected the formidable complication which existed. He then asked his brother to see the case with him, and they placed the patient fully under chloroform and made an examination, the result of which was to convince them that it was hopeless to expect delivery with a pelvis so obstructed, and then Mr. Burton came up to town to seek further advice. After again placing the patient deeply under chloroform, I proceeded to make a careful exploration. I found the pelvis filled up by a firm fibroid mass, with a diffuse broad base, apparently growing from the posterior uterine wall, and firmly jammed down in front of the fœtal head, which was high up above the tumour, and could be touched by insinuating the examining finger between it and the pubes. I soon satisfied myself that the tumour was so large, and so firmly embedded in the uterine walls, that any reduction of its bulk would have been hopeless, although I had brought with me the necessary appliances in the hope that this might have been possible, either by enucleation or by removing portions with the écraseur. By passing the whole hand into the vagina we all came independently to the conclusion that two fingers only, and that with some difficulty, could be insinuated between the tumour and the anterior pelvic wall, and, therefore, an inch and three-quarters was the outside space through which a fœtus could have been dragged, supposing the tumour to have been immovably fixed.

Even had that been possible, I could not but think that the bruising to which the tumour would have been necessarily subjected to in the attempt, would have rendered such a proceedure much more hazardous than even when a similar space existed in a bony pelvis. I think this conclusion justifiable from what is known to occur when ovarian growths obstruct delivery. In the former paper I have alluded to I have shown that one half of the mothers died in whom the bulk of the obstructing ovarian tumour had not been reduced by puncture, this high mortality being due to the contusion to which the tumours were subjected

setting up a fatal form of diffuse inflammation. I think it extremely probable that the necessary bruising of the tumour, involved in the attempt at delivery by turning and reduction in bulk of the fœtus, would have led to the same result. Still, I should certainly have endeavoured to turn in this case, and then, if possible, to get the fœtus past the growth, rather than resort to the desperate alternative of the Cæsarean section. In an interesting and very similar case, recorded in the twelfth volume of our 'Transactions' by Dr. Copeman, of Norwich, this proceedure was successful under conditions quite as unpromising. Before doing this, however, I resolved to make a determined effort to push the tumour itself out of the way, and I was encouraged to make the attempt, hopeless to all appearance as it seemed to be, by the recollection of a case alluded to in our 'Transactions' in which Mr. Spencer Wells had succeeded under the like circumstances. I, therefore, passed the whole of my left hand into the vagina, or rather my doubled fist, and made very firm upward and backward pressure on the mass in the intervals between the pains. To my surprise I found it receded a little, although pushed down by each pain, and eventually, and after using an amount of force that could only be justified by a knowledge of the alternative that awaited the patient in the event of failure, I got the bulk of the tumour above the promontory of the sacrum. The pains were so frequent and strong that I felt I could not venture to remove my hand, otherwise a single pain would have pushed the tumour down again. Had I been able to do so, I think turning would have been the best course, but that would have involved changing the position of the hand which was repressing the tumour. I, therefore, got Mr. Burton to steady the fœtus as much as possible by firm abdominal pressure, and, keeping the tumour pressed back by the knuckles of the left hand, I was able to pass the forceps along its palmar surface and to get them applied. As soon as this was done all difficulty was over, for a single traction brought the head through the brim, when of course, all obstruction was passed. The uterus contracted firmly, there

was no hæmorrhage, and the patient has recovered without an untoward symptom of any kind.

It may be asked why the enucleation of the tumour was not thought of in the event of reposition proving impossible? This is an alternative which, formidable and difficult as it must always be, would, no doubt, be less hazardous than the Cæsarean section, and possibly even than the dragging of a mutilated fœtus past the obstructing mass. In this instance, however, the tumour was so large, and its base so diffuse, that I felt positive such a proceedure would be quite out of the question. Although successful cases of enucleation have been recorded by Danyau and Hicks, I conceive that it can only be attempted when the tumour is comparatively limited in size, when it is apparently enclosed in a capsule, and when it has a narrow attachment to the uterine walls. In cases with a broad diffuse attachment, such as the one here described, such an attempt would be obviously impracticable.

It seems to me that the above case teaches the lesson that a determined attempt at reposition should be made, even when the circumstances seem most unfavorable, before proceeding to any more desperate measures.

Another thought that presented itself to my mind in this case was the necessity of action as soon as possible, when once the nature and extent of the obstruction was ascertained. No one could have seen this case, and observed the uterus fruitlessly endeavouring to overcome an insurmountable obstacle by repeated and forcible contractions, without being impressed with the risk the patient ran from laceration of the uterus. So evident was this that the moment I entered the house Mr. Burton informed me that this had been his chief anxiety during the hours he had been waiting for assistance, and it is obvious that in a case such as this we have the predisposing causes of rupture more marked than in any other conceivable condition, viz. an obstruction which cannot be overcome, a uterus vainly trying to overcome it, and the uterine tissues probably weakened by the existence of the fibroid tumour itself.

ADDENDUM.—Since the above paper was written I have met with another case, which well illustrates the nature of the obstacle to delivery which may arise from fibroid of the uterus, and, like one of those recorded in the paper, shows how readily an apparently formidable obstruction may sometimes be removed. I therefore think it may be of interest to record it.

On October 15th, 1877, I was asked by Mr. Connor, of Wandsworth, to see a patient on whom he was then in attendance. She was a primipara, æt. 30, who had always enjoyed excellent health, and no suspicion of any morbid condition in connection with the uterus had been noticed. Her labour had commenced at 7 a.m. with the discharge of the liquor amnii. When Mr. Connor was summoned, he found the pelvis obstructed by a solid mass, and could not make out the os uteri at all. I saw the patient at 4 p.m. There were then no pains to speak of, and the general condition of the patient was excellent. On abdominal palpation a fibroid outgrowth was felt at the right side of the fundus uteri, about the size of an orange. Per vaginam the upper parts of the pelvis were found to be entirely obstructed by a rounded firm mass, evidently a uterine fibroid. The os uteri could be nowhere made out. The patient was now placed deeply under chloroform, with the view of making a more complete examination. The whole hand was introduced into the vagina, and I was enabled to insinuate it between the posterior surface of the pubes, and the tumour. There was little more than enough room for the hand to pass flat, and it was quite obvious that nothing but the Cæsarean section would have effected delivery in this case, should it be found impossible to get the tumour out of the way. The os uteri was found high up above the pubes, and could barely be touched by the tips of the fingers. I determined at once to attempt to push the tumour out of the pelvis, as in the case recorded above. The patient being still deeply under the influence of chloroform I passed the whole doubled fist into the vagina, and pressed the mass steadily upwards. After a little time I felt it yielding, and

shortly it went up suddenly. The os now at once descended into the pelvic brim. I found it was undilated, and that a foot was presenting. I now left, as there were no pains, Mr. Connor remaining with the view of preventing the descent of the tumour by upward pressure in Douglas' space when her pains came on. At 10 p.m. he sent to tell me that he could not feel the os, and that he thought the tumour was descending. When I reached the patient, however, I found that Mr. Connor had been able to prevent this, and the body of the child was in the pelvis. The remainder of the labour was normal, the child being stillborn. The uterus contracted firmly, and there was no hæmorrhage.

This case very closely resembles one of those recorded in my paper, the tumour being even larger and the obstruction to delivery more complete. It affords a strong encouragement to a persistent attempt at reposition, failing which the Cæsarean section would have been inevitable. The existence of a footling presentation was fortunate, as giving a more complete command over the labour. In any similar case in which the head presented I should be disposed to turn and bring down the feet, if it could be done without much difficulty.

Dr. Barnes said that the difficulties and dangers associated with this complication varied with the seat of the tumour. When the growth projected into the cavity of the uterus, the danger was very great; when situated in the lower segment of the uterus, enormous. In the latter case, the tumour might be crushed, sphacelate, and give rise to pyæmia. There could be no doubt that fibroid tumours might atrophy; they were occasionally expelled. Hæmorrhage depended on the seat of the tumour.

Dr. Braxton Hicks, in allusion to Dr. Playfair's remarks that only small tumours could be enucleated from the lower segment of the uterus when opposing labour, stated that in the case he had published where he had successfully enucleated a tumour in the anterior of the cervix and lower third of uterus, the mass was very large, much more so than a fœtal head. It was readily detached, as tumours in this position generally are. In regard to the subject of the paper, he had, like most obstetrics, met with many, some giving rise to great anxiety and difficulty, one requiring Cæsarian section, another causing rupture; but he had

noticed that many of those cases which appeared unpromising during earlier pregnancy so far improved as to cause no trouble whatever. But when these cases occur in actual labour they have to be treated mechanically, but in those cases were we know of their existence during pregnancy the rule for treatment is of great importance, but this was aside the tenor of the paper.

Dr. Godson mentioned the case of a patient who had recently been in St. Bartholomew's Hospital on account of a large intramural fibroid, which sloughed entirely away, the process commencing immediately after parturition. The growth had so interfered with delivery that it had to be effected by turning. He believed that during involution these tumours frequently disappeared by sloughing, which might therefore be regarded as a second method of cure through pregnancy. Very large uterine tumours occasionally rose spontaneously out of the pelvis as the uterus enlarged. A remarkable instance of this had been observed in a patient under the care of Mr. Spencer Wells at the Samaritan Free Hospital, on whom it was believed that Cæsarian section would have to be performed.

Dr. Murray suggested the introduction of the hand into the rectum, to dislodge and push up a fibroid or any other mass, by which means the vagina would be free for the descent of the fœtal head or the application of the forceps. He had seen this plan carried out by the late Dr. Tyler Smith, although it was not in a case of labour, but where the tumour pressed so firmly against the sacrum that it prevented any action of the bowels.

Dr. John Williams said he had published the notes of a case in which a fibroid tumour complicated pregnancy. The patient had gone to the full term. The tumour was situated on the right side of the uterus in the lower part of the body. The fœtal head was pushed by it into the left iliac fossa and could not engage in the brim of the pelvis. Two fingers only could be introduced into the uterus. Version was effected by the external and internal method, and delivery was rapidly and easily accomplished, but the child was dead. No hæmorrhage followed. About a fortnight after the tumour, weighing nearly one pound, was expelled.

Dr. G. de Gorrequer Griffth said—Recently, sir, I have sent two such cases to Dr. Routh, as the patients were apprehensive of danger; we agree as to the existence of the double conditions named by Dr. Playfair, and that there is no ground for alarm at present, and we purpose keeping the cases under observation till labour sets in, so as to judge then of the effect of that process. Some little time since, Dr. Davies, of Bayswater, called me in consultation to see with him a patient who had a pretty large sized subperitoneal tumour, situated anteriorly and superiorly, and which, on account of its size, somewhat obscured

pregnancy in the early months. She went about her full time, and was delivered without any untoward symptoms occurring. Her recovery also was good. It was a noticeable fact in this case that during the gestatory period the tumour increased in size, that is, grew with the growth of the fœtus and with the enlargement of the womb, and rapidly decreased after delivery, continuing to diminish till she fell in the family way a second time, when it again commenced to grow bigger. The patient had been married fifteen years before conception had at all occurred. The next case which rises to my mind is that of a patient who had a number of subperitoneal tumours, one of which, larger than the others, and somewhat pedunculated, projected from the left side of the womb towards the left iliac fossa, where, during labour, it became somewhat jammed, and interfered with the birth of the child. In the absence of uterine pains I managed to draw it up out of its berth and keep it out of the way, and the child's head coming down the labour was completed without any bad result. After the puerperal period was over the tumours grew distinctly smaller. The last case I shall name illustrates a condition to which Dr. Grailly Hewitt drew attention some years ago. The lady came to me from Norwich to be attended by me in her confinement, as I had attended her previously in a difficult instrumental labour; the pelvis was narrow. I induced labour at the eighth month, and delivered the child with the forceps; this was succeeded by such sharp hæmorrhage that, as soon as I could hand the child to the attendants, I introduced my hand and removed the placenta; the bleeding continued; re-introducing my left hand, I ascertained that condition existed which Dr. Grailly Hewitt described, and by means of the left hand in utero, and the right placed externally on the abdomen, I gently broke up the adhesions, and followed the uterus down till it contracted well into the pelvis. While doing this I noticed a fibroid, as large as a lemon, on the summit of the fundus, where, no doubt, that inflammatory adhesive action had taken place which had lashed the womb in the position I found it. That tumour also has apparently shrivelled, and has given no further manifestation of its existence.

Dr. Hayes remarked that hæmorrhage might occur before delivery. He referred to a case in which hæmorrhage had proved fatal before anything could be done to effect delivery. After death an interstitial fibroid, about the size of a Tangerine orange, was found in the anterior wall of the cervix, and which could have been easily enucleated during life. The fœtus presented by the head, the membranes were unruptured, and the placenta was undetached and non-prævia. The specimen is in the College of Surgeons' Museum.

Dr. Edis thought the best position to effect reposition was

the genu pectoral, atmospheric pressure and gravity assisting the normal efforts.

The PRESIDENT said that a paper of this kind was of great interest, inasmuch as it opened up many points. 1st. A part of treatment is to raise tumours above the brim of the pelvis. 2nd. An important question is what effect has the presence of fibroid tumours during the puerperal state in producing inflammation, septicæmia, or other diseases? His own observation did not corroborate this view. He had seen absorption after delivery; in both instances the tumour was pedunculated and projecting into the peritoneal cavity. Interesting questions arise as to—1. What forms of tumour are likely to be absorbed? 2. What form of tumour is likely to give rise to much danger during pregnancy or delivery? further observation on this point is needed. 3. Whether there be any means or not by which we can imitate involution of the uterus and lead to absorption of fibroid tumours?

Dr. PLAYFAIR said that the discussion which had taken place on his paper did not seem to call for any reply. He had not alluded to sloughing as a possible termination of fibroid tumours, as it did not come within the scope of the paper, although he was, of course, aware of the possibility of its occurrence, and had seen more than one case. He was glad to find that there now seemed a general coincidence of opinion as to the possibility of the spontaneous absorption of uterine fibroids. He was pleased to have been able to bring forward two incontestable cases, since, when he had formerly read a paper on the subject, several speakers had said that he must have made an error of diagnosis, and mistaken a mass of pelvic cellulites for a fibroid.

MAY 2ND, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

Present 54 Fellows and 6 visitors.

Books were presented by Dr. Cordès of Geneva, Dr. E. S. Dunster, Dr. Jude Hue of Rouen, Professor F. Rizzoli, Dr. Routh, Dr. Spiegelberg, and Dr. A. Valenta.

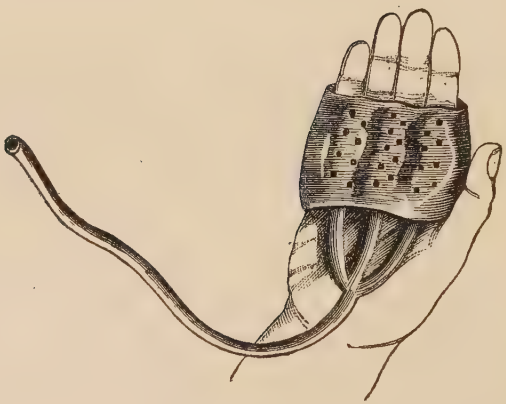
A model (by himself) of part of the breast of a girl, aged five years, showing two supernumerary mammæ, was presented by Dr. J. Ashburton Thompson.

Lewis James May, M.R.C.S., Tho. Silvester Gell, M.D., and Smith Houston Davson, M.D., were admitted Fellows of the Society; and Michael M. Bradley, M.B. (Jarrow-on-Tyne), William Eddowes, M.R.C.S. (Shrewsbury), and Marshall M. P. Dean, M.D. (Toronto), were declared admitted.

The following gentlemen were elected Fellows of the Society: Thomas Henry Barnes, M.D. (Croydon), Eustace J. Carver, M.R.C.S. (Fulham), John Dewar, L.R.C.P. Ed., Patrick Jamieson, M.A. (Peterhead), J. Jardine Murray, F.R.C.S. Ed. (Brighton), and John Cooke Verco, M.D.

The following gentlemen were proposed for election: Walter Tawell Colman, M.R.C.S. (Brighton), George Kerswell, L.R.C.P. Lond. (Looe), Wm. W. Stainthorpe, M.D. (Wickham Market), and Fred. H. V. Grosholz, L.K.Q.C.P.I. (Manchester).

Dr. Barnes exhibited, for Dr. Bernard of Londonderry, an apparatus for facilitating the injecting into the uterine cavity, after labour, of water or perchloride of iron. It is



made of india rubber, and consists of a band which passes over the operator's hand. It carries a tube along the palmar aspect, which branches into three, so as to distribute the injection. It possessed the advantage of enabling the operator to inject with precision, and to know exactly the effect produced.

Dr. Barnes also exhibited, for Dr. Scott of Canada, a pessary for prolapsus uteri. It consisted of an intra-vaginal part, supported on an elastic stem, which was in its turn supported by an abdominal belt. It was especially adapted for procidentia. Dr. Barnes had used it in cases of this kind with satisfaction.

Dr. WILTSHIRE exhibited, for Dr. Hadden of Horncastle, a specimen of fibroid tumour of the uterus. The patient was placed under Dr. Wiltshire's care by Dr. Hadden some years ago, and although the case was then one favorable for enucleation, any operative interference was declined. The patient was from time to time subject to severe losses of blood, and on one occasion, when she nearly bled to death, the "wise woman" of the village in which she resided advised her to eat some of the clots which were passed per vaginam. This the patient did; and disgusting as the remedy was, Dr. Wiltshire thought that at least its nutritive value must be admitted. At the post-mortem examination numerous adhesions of the uterus and tumour to the adjoining parts were found, doubtless the result of peritonitis. The growth was about the size of an adult head, and Dr. Wiltshire demonstrated by an incision into its capsule, how readily enucleation might have succeeded had the operation been acceded to by the patient at the time he originally suggested it.

Dr. GALABIN showed a specimen from a case in which embryotomy was rendered necessary by distension of the abdomen of the fœtus. The mother was twenty-one years old, and in the seventh month of her second pregnancy, having previously had a miscarriage at about the same period of pregnancy. Labour was protracted, although pains were vigorous, and the pulse rose above 120. The fœtal head was very small, the funis twisted tightly three times round the neck, and the head of a second fœtus could be just reached. Only one fœtal heart could be heard, corresponding to the presenting child. By powerful traction with forceps the head was brought down externally, but no further, although the

funis was divided, pulsation in it having ceased. The abdomen was then found to be distended. It was perforated through the diaphragm, giving vent to a quantity of clear fluid. It was then brought somewhat lower, but was soon again arrested. The fingers being passed through the opening made, a tense tumour was felt in the lower part of the abdomen. This was also perforated, and more fluid escaped, after which the fœtus was easily extracted. The tumour was found to be a distended bladder, which had been associated with ascites. There was much œdema of the abdominal wall, from the umbilicus downward, and of parts of the funis. The second child showed no signs of life, and its head was much flattened. The placenta was single and appeared to be healthy. Both children were males.

Dr. Heywood Smith asked if the placenta had been carefully examined, as in a case he had recently seen where there was dropsy of the fœtus, the placenta came away denuded of the maternal portion.

Report on Dr. Galabin's specimen of a fœtus in which ascites was combined with distension of the bladder.

The fœtus, one of twins, is a male. It is thirteen inches in length, and appears to be of somewhat more than seven months' development. The abdominal walls show evidence of having been extremely distended, and from the umbilicus upwards they are very thin. In their present condition the distance from the umbilicus to the ensiform cartilage is six inches.

The peritoneum is thickened, has lost its smoothness in places, and here and there a distinct but delicate film of lymph can be peeled off from it. The edge of the left lobe of the liver is adherent at one point to the bladder, but no other adhesions exist. The heart is healthy, and liver normal. We are therefore of opinion that the ascites was inflammatory in its origin.

The bladder is closely united with the abdominal walls in front up to half an inch above the umbilicus, a distance, in the present condition of the tissues, of four and a half inches from the symphysis pubis. No line of demarcation can be detected, and it would seem probable that the whole of the portion of allantois within the abdomen had become developed into the bladder. It is also possible, however, that adhesion between two surfaces of peritoneum may have taken place at a very early period of fœtal life. Both ureters are greatly distended, the right ureter most, but there is no distension of the pelves of the kidneys. The left kidney has undergone cystic degeneration. It measures an inch and a half by three quarters of an inch. The right kidney is very small, measuring only three quarters of an inch by half an inch, but its structure appears healthy. The urethra is pervious from the extremity of the penis as far as the neck of the bladder, but at that point it is completely occluded. The walls of the bladder towards its base are extremely thickened, especially in front. The whole thickness of walls of bladder and abdomen at this point is three quarters of an inch, of which half an inch appears to belong to the wall of the bladder. The mucous membrane over this portion is uneven and deeply congested. The corresponding portion of the abdominal wall is œdematous.

In a microscopic section of the thickened wall of the bladder the greater part of the thickness appears to be due to excess of muscular tissue, the section resembling that of a myoma. The portion immediately beneath the mucous membrane, however, consists of round cells lying amongst wavy bundles of fibrous tissue, and at some parts agglomerated in masses. The appearance resembles that seen in inflammation of cellular tissue. There are no deposits in the viscera, nor other evidence of a constitutional cause for the condition found.

John Williams.
Alfred L. Galabin.

ON A NEW MODE OF TREATING CERTAIN CASES OF RETROFLEXION OF UNIMPREGNATED UTERUS.

By James Braithwaite, M.D. Lond.,
VICE-PRESIDENT OF THE SOCIETY; LECTURER ON DISEASES OF WOMEN AND CHILDREN AT THE LEEDS SCHOOL OF MEDICINE; SURGEON TO THE HOSPITAL FOR WOMEN AND CHILDREN, LEEDS.

We are all familiar with the treatment of retroflexion of the unimpregnated uterus by means of Hodge's pessary, and this, with the occasional use of the sound and treatment of the congestion, inflammation, or subinvolution, as the case may be, suffices for the rectification of the malposition in most cases, and for relief of much of the attendant distress in all. When, however, these means fail, and they sometimes do, owing to the power on the long arm of the lever being unequal to the support of the weight on the short arm, we have only the use of the internal stem to fall back upon. This little instrument has always appeared to me unsuitable for the intended purpose. First, it is inefficient, owing to its being straight; secondly, and as a direct consequence, it is too long about its work, and during the lengthy period of its residence in the womb it acts like any other foreign body, keeping up enlargement and hyperæmia.

In precisely the cases in which the stem would be used, I have employed the plan of treatment which is the object of this paper to explain. If you want to straighten a crooked stick the usual way is to bend it in the opposite direction, and it seems to me the womb should be treated just on the same principle, provided there are no adhesions and no pain is caused by so doing. The uterus ought to be anteflected, and in this consists the principle of the treatment I propose to lay before you, combined with dilatation of the cervix and lower part of the body of the womb, for the double purpose of admitting the instrument and destroying the resistance of the tissues to the change of position.

Laminaria tents are not suitable for cases of retroflexion, they cannot, in fact, be passed and some little practice is required to pass a sponge tent. The best tent for this purpose is a long, fine, and very hard one, without any wax coating. This is to be passed rapidly up to the point of flexion, and there held for a second or two, when it will absorb a little moisture, and becoming somewhat flexible will then take the required bend and pass into the uterine cavity. If this cannot be accomplished, a shorter and thicker tent should be passed up to the point of flexion, and on its withdrawal next day a longer one can be introduced without any difficulty through the os internum. On the removal of the tents it is well to wash the parts out with a little weak iodine lotion. The next step is to take a piece of brass wire, about eight or nine inches in length, and no thicker than can be easily bent to a right angle with the first three fingers and thumb of the right hand. The wire should be ready prepared as follows—one end should be covered with india-rubber tubing to a length half an inch less than that of the uterine cavity as ascertained by the sound. This must be very securely and neatly closed at the end, the end of the wire being enclosed but not included. The tubing should fit the wire pretty closely, and it should be firmly secured to it by strong hemp ligature close to its proximal end. At this end of the tubing is to be placed a button, fixed to the wire, not to the tubing. This, which is the uterine end of the instrument, is to be now bent into a curve somewhat like that of the uterine sound, the point of greatest curvature coinciding with the os internum when the instrument is introduced into the uterus, which is the next step.

The flexion of the uterus must then be rectified, just as is commonly done by the sound. An inflatable rubber ball pessary, having a small central tube, is now to be threaded on to the wire projecting from the vagina and passed well up to the os, in order to retain the anteflector in the uterus by its upward pressure against the button when it is inflated with air. Only one thing now remains to be done, namely, to bend the portion of wire which projects from the vagina back-

wards, at a right angle between the buttocks, so as to lie closely in the sulcus between them. The position is now this: the uterus is anteflected—not simply straightened—the instrument cannot escape from the uterus, nor can it by any possibility enter further into it, even if the patient were to get up and sit on a hard seat, nor can it rotate so as to allow of the womb resuming its original position. At the same time there is no fixed point, and it accommodates itself to every movement of the body, such as coughing, sneezing, &c. The uterus is bent so as to stretch the part previously compressed by the flexion, but no harm results from this, for the tissues have become extremely pliable from the previous use of the sponge tent. No pain of any consequence results, but it is well to give a grain of opium, as a precautionary measure and also to confine the bowels. After four days, during which period the patient should be kept quiet in bed, the instrument is to be removed and the vagina washed out with Condy's fluid and water. A Hodge must be at once inserted; the uterus will now retain its position, but it is large and soft, and treatment must be directed to this. The patient should still be kept in bed, and a large dose of ergot given once daily, and vaginal injections of cold water used occasionally for the first three days. I think that to get the proper action of ergot we require to give a large dose seldom, rather than a smaller dose more frequently. I believe also that the uterus is more capable of contraction after a temporary enlargement, such as is induced by the treatment described, than it was before such treatment had been commenced, or than it would be had the treatment been more prolonged, as when a straight stem is kept *in sitû* for months. I have only treated four cases in the way described during four years, because it is alone extreme cases which require to be so dealt with. I was always successful in rectifying the malposition, but this did not in all entirely relieve the pelvic pains and other symptoms complained of.

I do not think anything would be gained by giving these cases in detail, and indeed they are less instructive than

other two cases in which I attempted the treatment but did not carry it out. In the first of these two there was a slight degree of chronic metritis, as evidenced by tenderness on pressure. In this case I was compelled to withdraw the instrument in a few hours, and give opiates to relieve the pain. As the dilatation by the tent caused much pain, I shall in future accept this as evidence that it would be better not to proceed further. It may be said that the metritis should have been previously treated, and this was done, but with very imperfect success, owing to the extreme flexion. I, however, afterwards kept this patient recumbent for some months, and succeeded in getting the malposition rectified by the use of a powerful Hodge. In the remaining case, either owing to want of care on my part or some misunderstanding on the part of the patient, I inserted the tent on the very day the menses were due. In the night she had regularly recurring and rather severe pains, ending in the expulsion of the tent. I kept her in bed during the remainder of this menstrual period, and then, on examination, found to my surprise that the uterus was quite in natural position. I inserted a Hodge at once as a precautionary measure. This case naturally suggests the possibility of making the uterus rectify a flexion by calling into play its own efforts, and it shows that the unimpregnated organ possesses active contractile power, for the pains were described by my patient as being at the last both severe and expulsive.

Dr. PRIESTLEY said that, some years ago, Dr. Moir, formerly President of the Royal College of Surgeons, Edinburgh, had recommended the dilatation of the uterus by sponge tents in cases of persistent retroflexion of the unimpregnated uterus, and the insertion afterwards of an intra-uterine stem with an oval-shaped bulb half way up, corresponding to the bend in the retroflexion. He could not say what results had been produced by this method of treatment, but Dr. Braithwaite's plan was the same, so far as the dilatations of the uterine cavity was concerned, although the later part of the process was different.

Dr. BARNES was slow to resort to internal until external means had failed. Hodge's pessary rarely failed. All internal sup-

ports, however ingenious, must cause a certain amount of chafing ; they also fix the uterus. The organ should not be fixed. When all other means had failed, intra-uterine supports might be tried. Before introducing a Hodge's pessary, the displacement should be reduced.

Dr. Graily Hewitt considered the instrument exhibited by Dr. Braithwaite highly ingenious and well adapted to the object in view. His own experience in the treatment of these long-standing difficult cases of retroflexion had induced him to carry out the principle on which Dr. Braithwaite has laid so great a stress, viz. the bending of the uterus in the opposite direction in order to remedy the flexion, but he had carried out this principle in a different way. His plan was to apply a vaginal pessary, a modified Hodge, in fact, accurately adjusted, which was worn continuously. In the next place the sound was periodically used, and by its means the uterus was bent slightly in the opposite direction, and there retained for a quarter or half an hour, this process being repeated from time to time. Further, the horizontal and semi-prone position of the body was insisted on. This combined treatment he had found eminently satisfactory in difficult cases. He would remark that there were almost insuperable difficulties sometimes met with, and, in fact, some cases of retroflexion were practically almost incurable, although even then capable of great mitigation in regard to the more severe symptoms. Thus, the presence of retro-uterine adhesions sometimes seriously interfered with carrying out a radical treatment. Then the thinning and atrophy of the uterine wall at the seat of the flexion was sometimes great, and when the disease was of long standing gave rise to great difficulty. Further, in some cases, especially in women a little advanced in life, when the disease was of many years' standing and the uterine tissues very much hardened, the restoration of the organ to its proper shape was hardly capable of being completely effected. His experience had led him to prefer, if possible, the avoidance of intra-uterine stems in the treatment of retroflexion.

Dr. Routh said, Dr. Braithwaite's paper commended itself to him in several particulars, but, although original as a whole, there were several points in it which had been previously foreseen and adopted by others with other instruments. First, the *length* of the internal stem being made to meet within half an inch of the fundus was a very excellent practice, preventing those serious symptoms which fundal endometritis was so liable to give rise to. Second, the instrument certainly kept the uterus once placed in an anteverted position, *in sitû;* so far it did precisely what Sir James Simpson's well-known spring pressary effected, only the latter was fastened in *front* over the pubes, while Dr. Braithwaite's fastened behind. Yet Sir James

Simpson's instrument, being fixed, left the uterus to be shaken with every movement of the body, and had given rise to so many accidents that its use was now abandoned. But that absolute rest was enforced by Dr. Braithwaite, his instrument offered no greater advantages for success. But, third, this posterior attachment was very analogous to that variety of Hodge's pessary adopted by Dr. Priestley, which ladies could apply themselves. Dr. Routh had used this Hodge with great advantage. This also was fastened posteriorly between the buttocks as Dr. Braithwaite's was. Fourth, the use of sponge tents or sea tangles, prior to the insertion of the internal stem, had also nothing new in it. He (Dr. Routh), as well as his colleagues at the Samaritan Hospital, had often so employed them, particularly as being in the habit of not unfrequently using hollow internal stems as thick as his finger; dilatation by a tent was a necessity before they could be introduced within the uterine cavity. In one respect, however, he differed from Dr. Braithwaite. He (Dr. Routh) used the sea tangle or tent, bent previously to the shape of the uterus, as ascertained by the sound, so as not to tear or injure the uterine cavity. Fifth, in regard to the use of Dr. Moir's internal stems, referred to by Dr. Priestley, with a dilated portion to correspond to the internal os, he (Dr. Routh) had used these also, but thought their length was a disadvantage, as they were likely to irritate the fundus. But the dilated portion had one salutary effect; sometimes it would set up some kind of fibrinous inflammation, whereby plastic material was expended to rehabilitate the thinned and atrophied portions of the uterus at the point of flexion. Indeed, he was not sure whether sometimes a *certain* amount of inflammation was not salutary (*if controllable and kept within proper limits*), in assuring a cure; not that he would *seek to induce inflammation*, but that it was not so much to be feared if proper antiphlogistic measures by way of prevention had been first had recourse to. Sixth, he could not exactly ascertain how Dr. Braithwaite could hope to produce a cure in four days by his plan. What of those cases where the uterus floated so loosely in the pelvis as to be one moment anteverted and the next retroverted, or of those where kept down by adhesions or weighed down in one direction by fibrous enlargements? He should be glad if Dr. Braithwaite would at some future time describe these cases in full, so that the full action of his instrument might be appreciated. The one new feature in this plan of Dr. Braithwaite's was the MOVING *elastic india-rubber ball.* All the other indications were in measure fulfilled by other instruments, and they all failed in many instances. So he feared, ingenious as was Dr. Braithwaite's, that it would fail also, and certainly in many cases four days' treatment would be found quite insufficient for a cure.

Dr. Meadows was entirely opposed to the views expressed by Dr. Barnes and Dr. Graily Hewitt. The uterus was not thinned on the concave but on the convex side of the flexion. He had seen Hodge's pessary inefficient and injurious. The uterus was often retroflexed when a Hodge's pessary was worn. A too mechanical view was taken in the treatment of flexion, though mechanical treatment was of great value, and stems were the most efficient form of it. He did not agree with Dr. Routh that inflammation was favorable to cure.

Dr. Bantock was surprised to find that the treatment of retroflexion of the uterus by means of vaginal pessaries still had its advocates. He maintained that it was physically impossible to rectify a well-marked flexion in this way. In the case of version the uterus was a rigid body, and any movement of the cervix moved the body in the opposite direction. Hence, the vaginal pessary (Hodge's), whose action on the cervix was well known to be the chief factor, yielded admirable results; but in the case of flexion the uterus revolved like a wheel. He had repeatedly demonstrated this effect both in the case of anteflexion and retroflexion. In adjusting a Hodge's pessary he was in the habit of always using the sound, not only for the purpose of replacing the organ but of steadying it while introducing the instrument. And the great advantage of this method was that the handle of the sound acted as an indicator; for if the sound remains steady it tells us that the pessary is efficient, while the slightest deviation indicates the reverse (of course the dorsal position is necessary). He had repeatedly found that the body of the uterus had fallen over the posterior transverse bar, when it would be found impossible to reintroduce the sound. After many attempts, followed invariably by failure, he had come to the conclusion that the only efficient method was that by the intra-uterine stem, which in his hands had yielded excellent results. It had been objected that the latter caused hypertrophy. Were it not that he disbelieved in the existence of thinning of the uterine wall at the site of flexion he would have been inclined to use this as an argument in favour of the intra-uterine stem. But his experience taught him that the one statement was as groundless as the other. It was an undoubted fact that the presence of an intra-uterine stem did not, as a rule, produce uterine contraction. On the other hand, it was matter of frequent observation that the introduction of a fine stem was followed by relaxation, so that on the next day a larger one could be readily introduced, and thus a graduated series could be made use of. There was one condition of the uterus (not described in our text-books), which was exceedingly difficult of management, to which he wished to call attention. It was that of anteflexion with retroversion of the organ. He detailed such a case in which,

by using one of Meadows' compound stems, he had effected a complete cure. The patient was a young unmarried woman, who came under his care at the Samaritan Free Hospital last year suffering from severe dysmenorrhœa. She wore the stem for three or four months, and a few weeks afterwards got married by his advice. The result was that pregnancy soon ensued, she was already in the fifth month. The case was worth a volume of theoretical objections to the use of the intra-uterine stem.

Dr. Galabin asked whether Dr. Braithwaite had tried a modification of his instrument in cases of anteflexion. His own experience was like that of Dr. Barnes and Dr. Graily Hewitt, that cases of retroflexion in which no form of Hodge's pessary was of any avail were very rare. Although the pessary might not by itself replace the uterus, it might almost always be made to keep it in place, if restored by the sound or other means, on repeated occasions if necessary. But anteflexions were far more difficult to treat effectually by vaginal pessaries. One reason for this was, that in the treatment of retroflexion aid might be obtained from intestinal pressure. The uterus being once restored, and the cervix held backward by Hodge's pessary, the intestines fell again into the retro-uterine pouch, and exercised, as they normally do, most pressure on the posterior uterine wall, there being more space for them behind the uterus than before. A gentle and continuous force was thus called into play for the cure of the flexion, to which there was nothing analogous in the case of anteflexion.

Dr. Rogers admitted that the criticism of one of the previous speakers on the great difference of opinion among the Fellows was most reasonable. Dr. Rogers thought that the instrument exhibited by the author of the paper might be useful in certain cases, as those brought forward to-night seemed to prove that it had been. He was in the habit of using intra-uterine stems when all other means failed, but then he preceded such use by leeching, purging, and douching, to prevent the occurrence of inflammation; and should pain be induced, it was at once withdrawn. He could not agree with his colleague, Dr. Bantock, as to the utter failure of Hodge's extra-uterine supports generally, as he had found them most useful in the treatment of flexions. Dr. Rogers thought Dr. Meadows had misunderstood the tenor of Dr. Routh's remarks, who certainly did not think it a desirable thing for inflammation to occur while using intra-uterine stems, if it could be avoided, for he well knew the difficulty of checking and limiting inflammation should it arise. Of course, both anteflexions and retroflexions occurred without any necessity to treat them; when no special disturbance, or pain, or suffering arose, then in such cases he never interfered.

Dr. Heywood Smith said that, amid the widely differing statements that had been made on the subject of the treatment of retroflexion of the uterus, the Society should be glad of the remarks which fell from Dr. Meadows, drawing attention to the need of more constitutional treatment, and he would wish to insist upon the necessity of local depletion of the uterus by leeches or scarifying before any mechanical treatment was carried out, as the neglect of this was the most fruitful source of mischief; at the same time he would give in his adhesion to the great efficacy of mechanical treatment when judiciously employed. He would, however, remark, that there is a great difference in the results of treating the malady in out-patients and in-patients; for whereas, in the former, the women could not rest, but went about their usual avocations, lifting weights, &c., with in-patients we could keep them in that state of perfect rest which in itself was so great an element of success, and which, combined with proper treatment, was the only safe method of dealing with the important flexion under discussion.

Dr. E. J. Hicks felt uncertain whether or not flexions produced results; the general state, local inflammation, and congestion should be attended to.

Dr. Murray considered that pessaries were used much too frequently. He had known many pains within the pelvis attributed to a displaced uterus, although that organ might be said to be in its normal position. He, however, found Hodge's pessary and the intra-uterine stem both of great value. The last named he had used in one case lately, where all other means of supporting the uterus had failed, and the patient was able to walk and move about with comfort, which she had not done for many months before. Dr. Murray had never seen any ill effects arise from the stem pessary, and he had always been able to introduce them without dividing the os uteri, as some had advocated, both to allow of its passage into the uterus, and also to assist in curing the displacement.

Dr. Wynn Williams remarked that, as his friend Dr. Murray had mentioned his name, he would just say a few words. As regards his stem and shield he rarely ever used them in cases of retroflexion; it was in cases of anteflexion that he recommended the stem and shield. As it was his intention shortly to read a paper on anteflexion of the uterus, he should not further allude to that form of displacement, which had really nothing to do with the present paper. In one case lately he had used the stem and shield with very good results. It was the case of a lady who had been under the care of an eminent gynæcologist in Dublin, who strongly objected to the use of pessaries, for some considerable period without deriving any benefit. At the time she consulted Dr. Wynn Williams.

she informed him she was about to sail to Ceylon in three weeks. He found the uterus very much retroflexed, heavy, enlarged, and held down pretty firmly by some old adhesions, which prevented the proper adjustment of the Hodge. He at once put her under treatment, applied leeches, &c., and introduced the stem and shield, without producing any discomfort worth mentioning. He first introduced the sound, and, by the assistance of his left hand, lifted the uterus into its proper position as near as he could, gradually turning the sound round until the point of the instrument looked towards the pubis, and then withdrew it, introducing the stem at the same time, then applied the shield. He saw the patient shortly before she sailed for Ceylon, when she expressed herself as feeling perfectly comfortable. His stem and shield would, he thought, answer every purpose as well or better than the one exhibited by the author of the paper. He stated he could generally succeed in treating cases of retroflexion with a properly adjusted Hodge's pessary. He first of all introduced the sound, of course with the point downwards as the patient lay on her back. He then gradually turned the point of the sound round so as to bring the uterus into its proper position, assisting at the same time with his left hand, much in the same manner as described by his colleague Dr. Bantock. He then passed the Hodge, having first bent it to the desired form, over the handle of the sound, and so into the vagina and back of the uterus. He was then very careful to see that the sound balanced, for if it do not this to a nicety, the Hodge must be changed for another, probably of a larger size. By balancing, he meant that the handle of the sound should remain perfectly level, the edge neither turning downwards to the right nor left. As to the position of the thinning of the wall, he could not agree with Dr. Meadows. He felt assured that in cases of anteflexion the thinning took place as it would in any other part of the body, as the finger in a case of whitlow, for instance, on the concave surface and not the convex. Any one might easily satisfy himself on this point by passing a sound into an anteflexed uterus, and with the finger feeling the difference in the thickness of the concave and convex surfaces. Then, again, as regards the thinning of the fundus or upper portion of the uterus lying on the rectum, as noticed by Dr. Graily Hewitt in cases of retroflexion, his experience would lead him to quite a different conclusion; at any rate if it be so, it must tend very much towards the cure of the flexion, as when the posterior portion of the uterus is diminished in weight it would be much more readily retained in its right position.

Dr. WILTSHIRE regretted to hear the expression of such discrepant opinions. He thought that no one familiar with the subject would endorse Dr. Bantock's statement that no good

resulted from the use of Hodge's pessaries. Dr. Wiltshire regarded that as an useful, though at times inconvenient, instrument. The stem pessary he believed to be a dangerous, though in certain cases efficient, instrument; and he expressed the opinion that many cases of uterine displacement were perfectly amenable to a much simpler method of treatment, namely, the simple restoration of the displaced organ, after which the patient should maintain the prone or supine position according to the indication. Replacement answered best when done immediately after a menstrual period. His friend, Dr. Beigel, of Vienna, was present and would, perhaps, tell the Society the results of his recent examination of 500 uteri, in only ten or twelve of which had he found flexions post mortem. It was noteworthy that Dr. Beigel had never seen any thinning or microscopical change in the uterine walls in such cases.

Dr. Beigel lamented the want of pathological knowledge. He had examined 500 uteri post mortem, and found flexion only ten or twelve times, and no change whatever in the uterine wall, no thinning or microscopical change. The sound could not be introduced in some cases because the canal was closed. Inflammation of the uterus did not favour the cure of flexions. Irritation of the uterus set up inflammation. The only means of cure was a stem.

The President said it was remarkable in what different lights the uterus was regarded. By some it was looked upon as universally sympathetic; while others looked upon it as an organ which would stand any amount of maltreatment. He could not reconcile these views. Sydenham said it was the duty of those who practise medicine to find out indications for treatment rather than special remedies for this or that condition. The great point to aim at with regard to flexions of the uterus was to distinguish the different classes of these displacements, and lay down rules when treatment should not be adopted because unnecessary or not beneficial. Great ingenuity has been shown in devising mechanical contrivances, but this may lead to mischievous practice. It should be remembered that the Society should lead the medical profession in a particular branch. The results of Dr. Braithwaite's work was hardly such as to be encouraging. There are some cases which are found out accidentally and do not require treatment; in others, the suffering is connected with congestion. Others, again, do not bear mechanical treatment because of the presence of adhesions. Virchow showed that thinning of the uterine wall took place in the concave side of the flexion, and brief treatment could not cure such a condition. Then, a condition found so rarely post mortem as flexion, according to Dr. Beigel's observations, cannot be of very great importance. Stems are objectionable because of the risk

of inflammation. The great principle of treatment should be not to do harm if good cannot be done.

Dr. Braithwaite, in reply, said that he wished to be distinctly understood that the treatment described by him was only to be followed as a most exceptional thing in which the internal stem would otherwise have had to be resorted to. In answer to Dr. Routh, he disclaimed any idea of curing a bad case of retroflexion in four days, but claimed that after this treatment, as a fact, the uterus does remain in its natural position, provided a Hodge is at once inserted, and the other directions followed. Thus, the cure is probably not completed for several weeks. All the four cases treated were of moderate duration only, but were characterised by the uterus being large and heavy, so that a Hodge assumed at once a faulty position. Dr. Braithwaite quite agreed with Dr. Barnes' remarks as to the rarity of failure with a Hodge alone, combined with treatment for congestion and with rest, but claimed that it was in precisely those rare cases of failure that his plan of treatment was applicable. It succeeded because the steps by which the affection occurs are retraced in their proper order. The misplacement happens when the uterus is soft and pliable, and by the treatment recommended the same state is produced prior to rectification. It seemed probable to Dr. Braithwaite that a less period than four days might succeed, and this would render the necessary confinement less with some. Dr. Braithwaite had not used this plan in any case of anteflexion.

JUNE 6TH, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

Present—47 Fellows and 4 visitors.

BOOKS were presented by Drs. H. W. Acland, Sam. C. Busey, J. R. Chadwick, G. J. Engelmann, Arthur Farre, E. W. Jenks, Labarraque, Paul Mundé, W. L. Richardson, and Charles West; Mr. J. G. Beaney, Mr. De Gorrequer Griffith, Prof. C. von Hecker, and the Smithsonian Institution.

The following gentlemen were admitted Fellows of the Society:—William Wigmore, M.R.C.S.; Robert Ostlere, M.B.; Nathaniel H. Clifton, F.R.C.S.; John Dewar, L.R.C.P. Ed., and Richard Paramore, M.R.C.S.; and the following were declared admitted:—William Wright Hardwicke, L.R.C.P. Ed. (Rotherham), Patrick Jamieson, L.R.C.S. Ed. (Peterhead), J. Jardine Murray, F.R.C.S. Ed. (Brighton), and Arthur L. Smith, M.D. (Ottawa).

Walter Tawell Colman, M.R.C.S (Brighton), George Kerswill, M.R.C.S. (Looe), William W. Stainthorpe, M.D. (Wickham Market), and Fred. H. Varley Grosholz,

L.K.Q.C.P.I. (Manchester), were elected Fellows of the Society.

And Edward Bürd, M.D. (Shrewsbury), F. Foxon, M.R.C.S., H. Sydney Howell, M.D., James John Holt, L.R.C.P. Ed., and Samuel Butler Mason, L.R.C.P. Ed. (Pontypool), were proposed for election.

The PRESIDENT informed the Society that a deputation had waited upon the Lord President respecting the Examination and Registration of Midwives.

Dr. ROBERT BARNES exhibited for Dr. JOSEPH R. BECK, of Indiana, two small instruments, designed several years ago by him, and known to the cutlers in America as Beck's "Uterine Applicator." The instrument is worked only through a dilated os. It is operated by, 1st, pulling the rod from the brush plunger to its full extent; 2nd, by a few turns of the rod *from right to left*, engaging the rod firmly in the end of the brush plunger; 3rd, entering the rod into the cylinder by pushing it, which action extrudes the brush; 4th, soaking the brush in any desired solution, and drawing it back into the cylinder, which forces off the brush all superfluous fluid; 5th, introducing the cylinder just within the external os, extruding the brush into the uterine cavity, and swabbing the same, by turning from right to left. This is in brief the summary of its action.

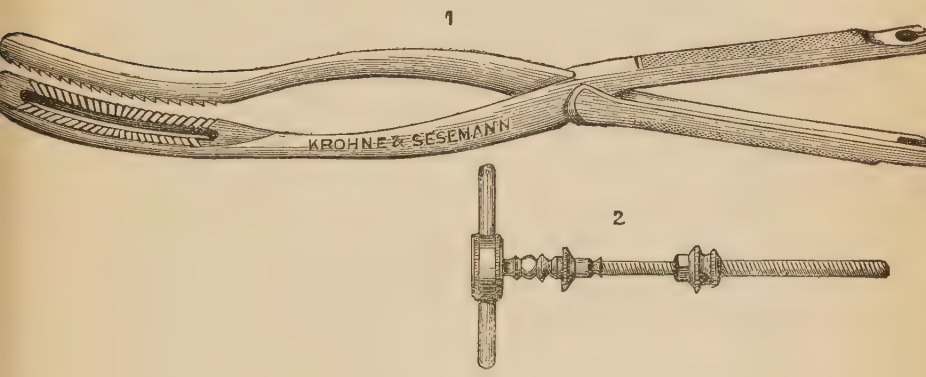
Dr. BARNES showed a flexible galvanic stem, composed of zinc and copper wire, coiled into a tube.

Dr. AVELING said he had shown a similar stem to the Society some years ago.

Dr. ROPER exhibited a new craniotomy forceps, the blades of which resemble those of the craniotomy forceps of Dr.

Barnes, while the shanks, locks, handles, and the mode of fastening the instrument were the same as in Dr. Hicks' cephalotribe. The same screw can be used for either the forceps or cephalotribe.

Dr. Roper called attention to a slight alteration of



Dr. Hicks' cephalotribe. He had found that the sharp corners of the instrument much interfered with the introduction of the blades. The rounding off of these angles greatly facilitated the introduction of each blade without impairing the holding power of the instrument.

Dr. Wiltshire showed some toughened glass specula made at his suggestion by Messrs. Maw. These new specula were very much stronger than those made of ordinary glass, their limit of frangibility being much higher.

THE PATHOLOGY AND TREATMENT OF MEMBRANOUS DYSMENORRHŒA.

By John Williams, M.D.,
ASSISTANT OBSTETRIC PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL.

The supposed rarity of membranous dysmenorrhœa, the scant material at our disposal for the study of its pathology, the obscurity in which it is involved, and the want of success which has been met with in its treatment, will, I trust, prove sufficient excuse for my occupying the time of the Society in narrating the histories of a few cases of the affection which have come under my observation, and in drawing some conclusions from them as to the nature of the disorder, and in this manner obtain some indications for its treatment.

Case 1. D. H—, æt. 30 years, single, began to menstruate in her nineteenth year. The flow lasted a fortnight; it returned every six weeks, and lasted each time a week. For a few times it was not accompanied by pain, but soon it became both painful and irregular, returning sometimes at the end of a month, sometimes of shorter or longer intervals—two to seven weeks. The discharge varied much in quantity. It contained lumps, which the patient thought were clots of blood. This condition continued until three months ago (1874). Since that time the catamenia have returned every four weeks. Three and a half years ago the patient had an attack of "pleurisy or inflammation of the lungs," and after a few months she noticed that she passed membranes not only during menstruation, but at other times also. For the last three years she has passed membranes with every menstrual flow, and also about the middle of the intermenstrual interval. The expulsion of the membranes passed during the interval is not accompanied by bleeding. The menstrual discharge comes away in gushes,

is accompanied by bearing-down pain, pain in the back and pelvis. The pain is most severe in the left ovarian region; this came on first three or four years ago, and is permanent. During and just before the menstrual epochs the patient suffers from epistaxis, vomiting of blood and of material like coffee grounds. She has pain in the epigastrium, a little to the left of the median line, passing through to the back. Food gives pain, and is returned in about two hours.

She is subject to fits. They occur more especially at night, but occasionally in the daytime; she becomes unconscious, convulsed on both sides, does not bite the tongue, but now and then foams at the mouth.

The complexion is sallow, dirty. There is no anæmia present. She suffers and has suffered from childhood from difficulty of breathing. She got better of the dyspnœa for seven or eight months when the catamenia first appeared, but the trouble soon returned and has continued since. She has never had any rash on the skin. She has suffered for years from leucorrhœa. Micturition is painful during the menstrual epochs. There is no history of gout or rheumatism in the family, but the father suffered from stone in the bladder.

The heart and lungs were healthy.

The vagina was neither unduly red nor tender.

The uterus was somewhat anteflexed but not enlarged. The mucous membrane around the os was red and inflamed. On the left side of the uterus was felt a small body similar to an ovary, very tender; pressure made upon it aggravated the pain in the left side. At first I treated the anteflexion, inasmuch as I was not aware of the real condition present. An anteflexion pessary was worn for several weeks without any benefit. While removing the instrument I found around it in the vagina a considerable mass of whitish flaky material; on inquiry I obtained the history which I have just detailed. The patient was then directed to use vaginal injections of hot water, and prescribed various medicines with temporary relief to the ovarian pain only, until she was ordered Fowler's solution in four-drop doses three times a day. She began

to improve almost immediately she commenced taking the arsenic; the breathing became easier, the complexion cleared, the sickness ceased, menstruation became more natural, the clots and membranes became smaller and fewer, and at the end of five months the patient was discharged cured. While taking the arsenic a crop of shingles appeared on the left side of the body.

The monthly function was performed regularly and without pain, and the flow contained neither clots nor membranes from March, 1875, until February, 1876, and with the exception of a leucorrhœal discharge the patient felt quite well.

In April of the latter year she came to me again and complained that the dyspnœa, the sickness, with coffee-ground vomiting, had returned, together with menstrual troubles, pain and expulsion of membranes. She had lost flesh. The tongue was clean, but presented a red patch where it appeared to be entirely deprived of epithelium.

She was put on treatment similar to that which appeared to have done good before—arsenic, blisters, and hot water vaginal injections—but with little improvement. The vomiting continued and she complained of pain in the epigastrium, which, however, did not go through to the back, and the injections of hot water caused her much suffering. She was therefore ordered a mixture containing bismuth, nitrate of potash and prussic acid, and pessaries containing bismuth and belladonna. She improved greatly. The sickness stopped, she gained flesh, the complexion became clear, and the breathing easy. She continued to pass pieces of membrane for five or six months, the menstrual flow became scanty and irregular, returning at intervals of six or eight weeks. She menstruated twice only between the middle of October and the middle of March last. On March 12th, when I last saw her, she said she was quite well and appeared so. She had menstruated a fortnight before without pain. The flow lasted four days, but was scanty. It contained neither clots nor shreds of membrane.

In November, about the time menstruation was due, she passed several pieces of what she called jelly, but no blood was

lost. I examined these and found them to consist of portions of the uterine decidua, composed of glands and round and fusiform cells. This is somewhat remarkable, for it shows that the essential part of menstruation in so far as the uterus is concerned, that is, the evolution and disintegration of the decidua, may take place without loss of blood.

I received from this patient fifteen membranes. Some of them consisted of the lining epithelium of the vagina, while others consisted of both vaginal epithelium and the uterine decidua. I may say here that the patient herself spoke of the vaginal portions only as membranes, while she termed the uterine pieces clots or jelly. Those passed during the intermenstrual interval were vaginal only, and those during menstruation vaginal and uterine.

The vaginal portions were formed of an opaque, whitish, tough membrane, and were expelled sometimes in several pieces, sometimes in one piece forming a complete mould of the vagina. The latter were in the form of a flattened tube, open at both ends, having the shape of the vagina and reproducing in great perfection the superficial markings of that canal—the median raphe and the transverse rugæ.

The uterine portions varied in size. They never were discharged as a complete mould of the uterine cavity, but always as irregularly shaped pieces of a brownish colour, stained with blood and measuring from a half to one inch in length. They presented the structures usually met with in the decidua—tubular glands lined by columnar epithelium, round and fusiform cells. I did not meet with the lining epithelium of the uterus preserved in any of them. The fusiform cells were considerably larger than those usually met with in the fully-developed decidua just before menstruation, and resembled those seen in the deeper layers of the decidua before it is completely differentiated from the subjacent muscularis—in a condition apparently of transition from muscular fibre cells to the small fusiform cells of the decidua. This seems to indicate an imperfect evolution of the decidua.

The round cells were present in considerable excess and

the matrix was in some places fibrillar. Small effusions of blood had taken place into the tissue.

Case 2.—H. S—, married nine years, has had one child, seven years ago. She enjoyed good health during her pregnancy, but had a difficult labour. She has never miscarried. The catamenia appeared early, about the tenth year. She was out playing, found herself bleeding, went to the house, to find that her clothes were "drenched with blood." She was put to bed at once. Afterwards she was regular every four weeks (rather less). The flow lasted each time a week, and was very profuse. It was always accompanied with great pain; the pain was sometimes so great that she rolled on the floor in agony. She had epistaxis at the menstrual epochs as well as at other times. This continued until marriage; after marriage the catamenia returned regularly for fifteen months and were of a similar character. She then became pregnant and was confined, two years after marriage. She nursed her child for a fortnight only, because she had but little milk. She had a discharge of blood for nine weeks after her confinement, then menstruation became regular every three weeks and was accompanied by suffering similar to that which was present before marriage. She knew that the discharge contained clots or lumps of some kind from the first appearance of the catamenia, but she was not aware that she passed membranes until her attention was called to it some years ago by her laundress. From that time to the present she has passed a membrane at every menstrual epoch.

She suffers from sickness always, it used to be worse at the menstrual epoch, but lately it has been very bad at all times. She has brought up blood with menstruation on several occasions; it is black at first, then of a lighter colour.

The epistaxis has continued at intervals. She is very nervous and hysterical. The menstrual flow is now profuse, lasts ten or fourteen days, is accompanied by severe pain, which reaches its maximum when the membrane is expelled. This always happens on the third day.

She has pain in the back and bearing down in the pelvis at all times, suffers much after walking or standing. These pains are greatly aggravated during menstruation. She has also pain in the left ovarian region, hip, and thigh, which is occasionally intensified about the middle of the intermenstrual interval. The flow comes in gushes, it stops and returns again. Two or three days after the menstrual epochs she loses the use of her legs, and a curious feeling passes up the body to the head: "the sight goes," and she "loses herself for a moment," then some congealed blood comes from the nostrils. Convulsions never accompany these sensations. Micturition is frequent and often painful. The bowels are habitually confined; flatulence is very troublesome; the appetite is bad. Patient as well as her father and mother have had rheumatic fever.

The patient was fairly nourished, of a dirty sallow complexion, somewhat anæmic. The tongue was covered with a thick yellow fur with red points.

The lungs appeared to be healthy.

A loud systolic murmur was audible at the mitral apex.

The uterus was large, almost as large as the organ in the second month of pregnancy, of a softish consistence, not tender, acutely retroflexed, and replaced with great difficulty. The sound entered for three inches and a half. The mucous membrane of the cervical canal was red and inflamed, the lips eroded. The left ovary was prolapsed and tender. There was a profuse yellow discharge from the vagina and uterus.

This patient has been under my care for nearly three years, and I will briefly state the treatment prescribed during that period and the result of it.

The retroflexion was first reduced and a pessary introduced to maintain the organ in position. By this means considerable relief was obtained from the backache and bearing down, for with a little trouble the uterus was kept in a straight position. After a time the organ became reduced in length, from three and a half to two and a half inches.

The general and local conditions were further treated by the following means:—Sulphate of magnesia, bismuth, nitrate of potash and hydrocyanic acid, iron, iodide of potassium, bromide of potassium, quinine, alkalies and bitters, acids and bitters, ergot, nux vomica, digitalis, resin of guaiacum, blisters to the ovarian region, morphia, injections of hot water, arsenic, electricity, and the application of nitric acid to the uterine canal. While under treatment she had two or three attacks of cystitis; micturition was at such times very frequent and painful, and the urine contained albumen and pus.

The general condition was at its worst soon after a menstrual epoch, and was such as I have described. The treatment adopted, however, cleaned the tongue, regulated the bowels, and improved the appetite by the middle of an intermenstrual interval. As the time for the appearance of the catamenia approached, however, the stomach became disordered, the tongue foul, and by the time the flow had ceased the condition was much the same as it had been a month before. The leucorrhœa was somewhat diminished from time to time, but it increased again after menstruation.

The pain in the ovarian region was relieved by blisters, but, like all the other symptoms, was aggravated again periodically.

The vomiting was greatly ameliorated, and the epistaxis ceased, but only for a time. On the formation and expulsion of the membrane none of the medicines ordered seemed to have the least influence.

The effects of electricity.—The patient was admitted into University College Hospital, and remained there for two months. During that time she was galvanised twice a week, except during menstruation. The galvanism caused little or no pain, but a rather free hæmorrhage, lasting two or three days, followed its use on almost every occasion. On two occasions, while in the hospital, she passed several pieces of membrane, but she did not pass a complete cast of the uterus.

Electricity was employed afterwards once a week for months, but without any apparent effects other than those stated. It had no permanent effect upon the formation and expulsion of the membrane, nor, I think, any temporary effect other than to effect its separation in shreds during or at other times than the catamenial epochs.

Upon the local pain and the general condition of the patient it had no influence whatever.

The effect of fuming nitric acid.—This was applied to the whole of the cavity of the uterus through a platinum canula. It was done on two separate occasions immediately after menstruation. After the first application there was some pain and a slight discharge of blood. The catamenia appeared a fortnight after. A perfect cast of the uterus was expelled on the third day with hardly any pain. There was but little sickness, but epistaxis occurred for several days after the cessation of the flow. The next menstruation was accompanied by very little pain, though a membrane was passed as usual. She was again admitted, and nitric acid applied as before. It caused a good deal of pain and hæmorrhage for two or three days. The patient was kept in bed for a week and then discharged. The first flow after appeared in due time, was painless, much less profuse than usual, though on the third day she passed a complete mould of the uterine cavity. The next menstruation was almost painless, but the third, after the application of the acid, was as painful as it had ever been. Her condition now, as far as the membranous dysmenorrhœa goes, is much the same as it was three years ago.

The acid cured the inflammation of the cervical canal entirely, and restored to a flabby cervix its normal appearance and consistence. It also diminished the profuse flow of blood, but upon the formation or destruction of the membrane it had no appreciable effect.

I have examined a large number, about twenty-five, of the products expelled. The membrane was a flattened triangle, of a brownish-grey appearance stained with blood; at the apex it was prolonged into one or more long villi. It

measured two inches and a half in its whole length, one inch at the base, at the part corresponding to the internal orifice of the uterus about half an inch. In the centre of it was a canal measuring half an inch in width at the base, and dividing into two branches corresponding to the cornua uteri. These could be traced towards the surface, but the openings corresponding to the ostia of the Fallopian tubes could not be distinctly made out. The canal contained a thin clot of blood which glued the opposite walls of the membrane together. At the part corresponding to the inner orifice the mass was almost entirely formed of decolourised fibrine. This embraced the end of the membrane and was drawn out into one or more strings about an inch in length.

On section the membrane appeared striated; it contained small effusions of blood; it was composed chiefly of round and fusiform cells, the round greatly predominating, and blood. The round cells were similar to those found in the normal decidua at the time of menstruation. Spaces were also visible in it which were doubtless glands, and though these were lined in some places by cells which appeared to be columnar epithelium, yet I was not able to find a good example of that form of epithelium anywhere except on one occasion, and then it was found only on the inner surface of the membrane in the part corresponding to a cornu of the uterus. Some of the flocculi on the external surface appeared like casts of tubular glands, and were formed of an apparently structureless substance, having granules and small round cells on their surface. The matrix was generally homogeneous, but in some places slightly fibrillar. All the examples presented a similar structure, even those discharged after the application of nitric acid. I thought, however, that the round cells were not quite so numerous in the latter.

Case 3.—M. C—, æt. 29, married eight years, is sterile. The catamenia appeared first in the sixteenth year; the flow used to be irregular in amount, lasting a week, fortnight, or even five and seven weeks. It was always very profuse and contained lumps and dark-coloured pieces similar to those

she is in the habit of passing now. The first intimation she had that she was menstruating was feeling something on the thigh, which turned out to be a mass similar to those she has passed at every epoch since. Menstruation was, however, not accompanied by pain. Since her marriage she has been regular every four weeks. For the last three years she has had pain with the catamenia, and she thought it was due to a cold. I could, however, find no evidence of this. The pain is in the right ovarian region and goes through to the sacro-iliac joint behind. It is always present, but is much worse for a few days preceding and during the early part of the flow. She has also a dragging and bearing-down pain in the pelvis, and a feeling as if something were falling in the right ovarian region. The membrane is expelled during the first two days of menstruation, and is accompanied by severe pain. The bosoms become hard and painful a few days before the flow appears, the pain subsiding during the first few days of bleeding. She feels weak and has a difficulty in walking.

The patient was of a bright cheerful appearance, fresh complexion, well nourished, not anæmic. She was highly nervous and hysterical. The appetite was bad, the tongue was clean, the bowels regular. Flatulence was troublesome. There was no leucorrhœa. The heart and lungs were healthy. The uterus was harder and larger than natural. The sound entered rather more than two and a half inches, and caused a good deal of pain as it passed the inner orifice. The cervix was conical, of natural colour, the orifice was very small and round. A body similar to the right ovary, movable and slightly tender, was felt in the situation of that organ. Like the previous case she was treated by blisters, hot-water vaginal injections, and a variety of medicines, but without any permanent benefit. The ovarian pain was relieved by the blisters, but returned again and again.

Electricity was employed once a week for some months. One pole was applied to the lumbar region and the other to the cavity of the uterus and to the ovarian region, but with-

out any apparent benefit. It did not give rise to hæmorrhage as in the previous case.

The cervix was divided and fuming nitric acid was applied to the uterine cavity on two occasions. It caused neither pain nor hæmorrhage. None of the means employed had any effect upon the production and expulsion of the membrane, though the pain has been greatly alleviated.

I have examined eleven of the membranes expelled. They never formed a perfect cast of the uterus, but were generally expelled in one or two large irregular pieces, rough and flocculent (the flocculi being very long) on one side and punctated, sometimes slightly furrowed on the other side. They were formed of numerous glands which were straight and not convoluted or spiral like those met with in the healthy decidua just before menstruation, a great excess of round cells and fusiform cells in a matrix which was slightly fibrillar. There can be no doubt, I think, that this patient expelled membranes from the uterus during menstruation from the first appearance of the function, and it is a noteworthy fact that she did so without suffering, and that the pain came on three or four years ago only.

Case 4.—Mrs. C—, married; began to menstruate when eighteen years of age. She was never quite regular. She never suffered pain with menstruation, though the flow contained pieces of membrane from the first epoch. She never had a child, but she miscarried at the fourth month four years ago. She had no pain with the miscarriage, "only a curious feeling of illness." Menstruation had often ceased for six or eight weeks, and then a little bag similar to the one described below was passed without pain. She thought they were "conceptions." When she had passed a bag with one flow she did not pass one with the next following, but did with the third flow. Menstruation had ceased when I saw her for six weeks, and she thought herself pregnant. She felt quite well. The uterus was uniformly enlarged and of the size of the organ at the sixth week of pregnancy; the lips were softish. There was no displacement or tenderness. She was told to

rest. Three weeks afterwards, on January 17th, she bled a little without pain. This ceased for two days, but on the 19th the bleeding returned, and she suffered a good deal of pain until the sac was passed on January 21st. The pain then ceased. The discharge was free, but less, and less clotty than when she used to walk about. This patient was a tall, stout, somewhat florid-complexioned lady, healthy and active. The membrane passed was a sac, forming a complete mould of the uterus, having three openings corresponding to the openings of the Fallopian tubes and the os internum uteri. It measured at the sides one inch and three quarters, at the base one inch and a quarter, and at the neck, which corresponded to the inner orifice, half an inch. Its external surface was rough, shreddy. The inner surface was smooth, somewhat convoluted and presented numerous small depressions, the orifices of glands. The outer surface was pale but stained with blood, the inner dark and fairly injected. The injection was very superficial and was present only on the sides, where the membrane was thickest. At its thickest part it measured nearly a quarter of an inch. The borders of sac corresponding to the borders of the uterus were extremely thin. No trace of an ovum could be discovered, nor could a rough spot from which an ovum might be supposed to have been detached be seen on the inner surface of the sac. The bag was lined by columnar epithelium, and consisted of round and fusiform cells, glands lined by columnar epithelium, and blood-vessels in a homogeneous matrix. The round cells were not in such great excess as in the other examples I have examined, and the fusiform cells were larger than those of the menstrual decidua. Indeed, the structure presented characters similar to those met with in the decidua, and in abortions of the second month, and I do not feel sure that the membranes were not the result of conception. The fact that menstruation had always been irregular, that membranes had been expelled throughout menstrual life, even before marriage, and that no trace of an ovum could be found in the sac, appear, how-

ever, to favour the view that the case was one of membranous dysmenorrhœa.

Case 5.—Mrs. C—, æt. 31, has been married ten years, but has never been pregnant. She menstruated first in her fourteenth year. It is somewhat uncertain whether or not the catamenia were at first painful. The mother maintained that they were, because she had to send her daughter home from church for that reason, but the patient herself doubted it. She was regular for about a year. She took a long walk immediately after the cessation of a flow and the bleeding returned profusely. From that time the discharge has always contained lumps. From the fifteenth to the nineteenth year they were irregular and very profuse. Then they became more regular though the discharge was always lumpy and accompanied by pain. For some time they have been very scanty. She has noticed pieces of flesh in the discharge for five or six years only. There is profuse leucorrhœa. She has had pains in left ovarian region for years. The father suffered from hay asthma, the patient herself has suffered from asthma for five or six years, and has one sister who is asthmatic.

She had a polypus removed from the nostril three years ago.

The patient has dark hair and skin, a dirty sallow complexion. I found she wore a Hodge's pessary because the uterus had been retroflexed. The organ when I saw her was somewhat larger than natural and slightly anteflexed. There was slight tenderness and fulness on the left side of the uterus. The mucous membrane of the cervix was inflamed and poured out a profuse purulent discharge.

Fuming nitric acid was applied to the uterus and Fowler's solution prescribed to be taken three times a day. I saw her a month after, the asthma had almost if not entirely disappeared. She had menstruated more naturally than she had for years. The flow was free and the shreds passed were very small. The uterus was smaller, the cervix natural, all the redness of the mucous membrane having disappeared.

Some time afterwards she took a drive on a cold day, at the time the catamenia were due; they were suspended for a fortnight, and she suffered from an attack of pelvic peritonitis. Menstruation returned with severe pain, and the discharge contained several pieces of membrane. The membrane was expelled as several shreds, the largest measuring about an inch in length. It consisted of glands lined by columnar epithelium, fusiform cells, and excess of round cells, in a matrix which was here and there slightly fibrillar.

Two specimens were examined.

Case 6.—Mrs. S—, æt. 32, was married at the age of nineteen. Her husband died eleven years ago. She has never been pregnant. She menstruated two or three times before marriage. The catamenia have always been regular, but accompanied by pain. The flow used to last a week and appeared to be normal in amount, but it always contained lumps. For the last twelve months the flow has been very profuse, and the clots and bits of flesh are bigger than those previously observed. She has lost flesh lately and she feels nervous and hysterical. The mucous membranes were fairly coloured. The bowels were confined. Micturition was normal. The uterus was a little larger than natural, slightly anteflexed, drawn to the right side, and less movable than usual. The left ovary was prolapsed but not tender.

She was ordered ʒss doses of bromide of potassium three times a day and vaginal injections of hot water.

The next menstruation lasted three days and was very painful. On the second day a membrane was passed in two pieces, of irregular shape, having one surface smooth and punctated, the other shaggy. It was of a pale grey colour with dark patches, due to effusion of blood into its substance. Under the microscope it was found to consist of tubular glands, lined by columnar epithelium, round and fusiform cells, in a fibrillar matrix. The round cells were in great excess. There were some fatty granules scattered through the membrane.

Case 7.—E. W—, æt. 27, single; does not know when

she began to menstruate. She has always been regular every four weeks, but the epochs were always very painful. The discharge has always been lumpy, lasting two or three days. The pain is of a forcing-down character in the pelvis and lower part of the back. She has pain also in the left ovarian region, hip, and thigh. She has occasional leucorrhœa. Patient is hysterical. The bowels are regular, the tongue clean, and micturition normal. The hymen was perfect. The uterus was rather small, anteflexed, and drawn to right side. The sound entered less than two and a half inches. There was no hardness around the uterus.

The patient wore a galvanic stem for three weeks, and was kept in bed. During this time she felt much better, and the first menstruation after the removal of the stem was much less painful. Some small shreds of membrane were, however, passed. She has menstruated twice since, and on both occasions membranous shreds were passed with great suffering.

The membranes at first were irregular pieces which, when put together, formed a complete layer of the uterine decidua, but after the instrument was worn they were expelled in smaller pieces, which could not be arranged so as to form a cast of the uterus. They presented a structure similar to that of the examples already described, that is, tubular glands, excess of round cells, and fusiform cells.

Case 8.—L. J—, æt. 22, began to menstruate in her thirteenth year. She was irregular at first, the intervals amounting to two or three months. The discharge was very profuse and accompanied always by great pain. The pain was all round the pelvis and lower part of the back. She does not think the discharge was clotty at that time. She noticed lumps in it for the first time two years ago. From her seventeenth year she was regular every few weeks until her nineteenth. For about a year, the nineteenth or twentieth, she was bleeding almost constantly. Since that time she has been more or less regular.

She has complained of pain in both ovarian regions and above the pubes for two years. For the same period

menstruation has been frequent and painful, and the urine has been thick. She has spat blood nine or ten times during the last nine months. This has occurred irrespective of menstruation. She has occasional white discharge from the vagina.

The hymen was perfect, the vulva extremely tender, the uterus slightly antecurved, of fair length, but rather slight in volume. There was no tenderness around the uterus and no swelling or ovary could be felt. The urine was acid, contained traces of blood, pus, and a great quantity of urate of ammonia.

She brought me the "lumps and clots" she passed, and amongst them was an irregular piece of membrane, measuring nearly an inch in length. It was composed of tubular uterine glands, lined by columnar epithelium, great abundance of round cells, and fusiform cells. The matrix was everywhere homogeneous.

Case 9.—H. T—, æt. 35, single, began to menstruate in her thirteenth year. She was never regular; the interval between the menstrual epochs never amounted to a "clear fortnight." The flow lasted never less than ten days and sometimes a fortnight; it was always accompanied by severe pain in the pelvis and back; it contained lumps; from her twentieth year the flow has been more profuse and the lumps larger.

She suffers now from a large uterine fibroid reaching up above the umbilicus. Her menstruation is very profuse. It contained clots and membranes. Some of these membranes are irregularly shaped pieces of the decidua, consisting of tubular glands with columnar epithelium, fusiform cells, and great abundance of round cells.

Case 10.—Dr. Meadows kindly gave me a specimen of the dysmenorrhœal membrane passed by a young lady aged twenty-one years, who had menstruated painfully for years, and passed membranes at every catamenial epoch. I have not obtained a full history of this case, but taking into consideration her age and the fact that she had menstruated with

pain for years, it seems highly probable that the membranous dysmenorrhœa was primitive.

The uterus was a little larger than natural. The membrane consisted of several large white pieces, flocculent on one side, smooth and punctated on the other. It was composed of tubular glands, lined by columnar epithelium, fusiform cells, and excess of round cells, in a homogeneous matrix.

Case 11.—The history of this case was obtained from the mother. S. D—, æt. 25, single, and had never been pregnant. Menstruation occurred about every three weeks, lasting a week. It was accompanied by very severe pain always, and sickness. The pain was of a bearing-down character. The mother did not know whether or no the discharge contained clots or pieces of membrane. This patient died of acute pleurisy on the fifth day of menstruation. Dr. Sidney Coupland kindly sent me the uterus and appendages.

The peritoneal surface of the organ, the Fallopian tubes and the broad ligaments were of a dark colour, the veins being greatly injected. The posterior surface of the uterus was more congested than the anterior. The uterus measured three inches in length, and two inches in width between the Fallopian tubes. The organ was opened along the median line posteriorly. The wall measured three quarters of an inch at its thickest part; it was perhaps somewhat softer than natural and appeared œdematous. Near the peritoneal surface it was injected with black blood, but the inner three fourths of the wall was pale. I have described the condition of the inner surface of this uterus in a paper on "The Mucous Membrane of the Uterus and its Periodical Changes," from which I quote the following:

"The cavity of the body of the uterus contained a sanguineous fluid, together with three pieces of membrane, the largest of which had a triangular outline and was spread on the posterior wall of the uterus, though not attached to it, it was evidently the mucous membrane covering that wall which had become detached. After removing the membrane the surface beneath was flocculent and blood stained. The

microscope disclosed the fact that the mucous membrane had been in great part removed. The process of removal, as in the previous uteri, had begun at the inner orifice and proceeded towards the fundus. This was well seen on the anterior wall, where a thick layer of the membrane had been shed everywhere except near the fundus. In that situation there was found a small patch of membrane, which had not been completely detached. As in the uteri previously described, the whole thickness of the membrane was not removed at once; a layer, which was very thin near the inner orifice, and which became thicker towards the fundus, still remained."

There is some evidence that this uterus was somewhat enlarged above its original size. It was two inches wide between the Fallopian tubes, and rather more than an inch and a half in antero-posterior diameter; the body was somewhat rounder than in the normal uterus, though the organ was of the usual length. Whenever the uterus becomes enlarged, whether it be from pregnancy or from other cause, the first evidence of it is found in the increased rotundity of the body, for the reason that the increase in this respect is more marked than the increase in length. We cannot determine the original size of the uterus, but I think we may fairly infer that the wall is thickened. I need not say that this thickening is due to the work of expelling a membrane every month for years.

Microscopical examination appeared to show an excess of fibrous tissue in the wall, both by the general appearance of sections, and of small portions where muscular bundles were separated, as well as by the action of acetic acid upon it.

The membranes found in the uterus presented the structure of the decidua with an excess of round cells; the matrix was distinctly fibrillar; the fibrillation became less marked though it did not disappear entirely on the addition of acetic acid. The fusiform cells appeared somewhat larger than those met with in the healthy menstrual decidua.

Case 12.—J. A—, æt. 24, single, has had one child three

years ago. The catamenia appeared first about the fifteenth year. They were at first regular and painless. She was a machinist, and about the seventeenth year she began to grow pale and delicate; menstruation became irregular, returning once a fortnight and sometimes bleeding every day for a long period. She was treated for this and got much better, but the anæmia returned again.

She is regular now every month; has great pain in the back, left ovarian region, and thigh. The flow lasts six to fourteen days; it is clotty, and on the third day a "large piece of flesh" is expelled. The patient is very pale and suffers from all the symptoms of anæmia.

The uterus was straight, tender, larger than natural. The os was patulous, the margins red and granular. A swelling like a tender ovary could be felt to the left of the uterus. Iron was administered internally and fuming nitric acid was twice applied to the whole of the uterine canal. It caused neither pain nor hæmorrhage. Menstruation became much less painful and the discharge more moderate, but still membranes have been passed with almost every period since, that is, for five months. The redness of the canal and the granulation of the cervix were completely removed. Since she left the hospital the swelling on the left of the uterus has become very tender, and she has suffered a good deal of pain in the ovarian region and thigh.

The membranes were sometimes perfect casts of the uterus, sometimes shreds presenting a structure similar to that of those already described.

Case 13.—Dr. Meadows, exhibited before the Society, two years ago, an example of the dysmenorrhœal membrane passed by a lady aged 38 years, who had had several children. She shed a cast of the uterus every month. The uterus was much enlarged and retroflexed. The membrane itself showed that the cavity of the uterus was considerably increased in size. The following is the description of its microscopical structure, taken from the Society's 'Transactions' vol. xvi, page 252 (Report on Dr. Meadow's specimen of Dysmenorrhœal Membrane, by Dr. Aveling and myself).

"Under the microscope the membrane was seen to be composed of round cells, small fusiform cells, and blood-vessels, embedded in a structureless matrix. No distinct evidence was obtained of the presence of columnar epithelium. The little pits visible to the naked eye were seen to be channels running through the membrane, and were, without doubt, glands deprived of their epithelial lining. No evidence could be obtained of the presence in the tissue of the products of inflammation; indeed, it presented a structure similar to that of the healthy mucous membrane of the uterus, except that the round cells in it were more numerous than in the latter, a condition we would naturally expect on account of the enlargement of the uterus from which the membrane was expelled."

I would state here that, having examined sixty or more specimens of the dysmenorrhœal membrane since the above report was written, I do think that the round cells are in part the product of inflammation, and in part also due to excess of connective tissue in the uterine wall.

Case 14.—I. C—, a Jewess, æt. 25, born in Antwerp, has been married four years. She is sterile. The catamenia appeared on her fourteenth birthday without pain or any other discomfort. The flow used to last three or four days, was never profuse, and contained neither clots of blood nor lumps of any kind. She had been married four or five months before she began to be ill. She was travelling in America and refrained from passing urine for three or four hours; from that time she became unable to retain her urine, and suffered from a feeling of weight in the pelvis. This continued for three or four months, and for it she consulted a doctor in New York. She was told she had "a stricture of the womb," and the canal was dilated twice a week by means of bougies for some time. Deriving no benefit from this treatment she consulted another doctor. The womb was operated upon (evidently incision of the cervix), and two months afterwards an instrument was introduced (evidently a stem pessary), which was worn for three months. At the end of that time she was laid up for seven weeks, with

what appeared to have been inflammation of the womb and peritonitis. After she got up she had a relapse, and was laid up a second time with like symptoms, and was told she had inflammation of the bowels. She was then informed that the womb was anteflexed. Soon afterwards she came to England, and with the first period after her arrival she passed a membrane (1874). From that time to the present she has, with very few exceptions, passed a membrane with every menstruation.

She has continuous pain in the back and pelvis, more especially in the left ovarian region, passing through to the sacro-iliac synchondrosis and down the thigh. The pain is much worse just before and during a menstrual epoch, and then involves the whole of the pelvis. It attains its maximum just before the expulsion of a membrane, when there is severe uterine colic. Later in the history of the case the pain extended down to the left foot and up to the left kidney and arm. The left arm felt heavy.

The discharge has been for some time irregular in quantity; at one time it lasts three, at another eight or ten days, and is profuse. The flow is not continuous, it stops and returns again. Micturition is frequent and generally painful, and after passing water she has a sensation of something falling in the left ovarian region. She has bearing down in the vagina and rectum.

She was pale, anæmic, and sallow. The tongue was furred, the appetite bad, bowels confined, and flatulence distressing. There was a tympanitic fulness in the left ovarian region. This was most marked just before defæcation, which act was exquisitely painful, making her cry out. The lungs were healthy. At the apex of the heart a loud systolic murmur was audible. She has never had rheumatic fever. Sitting was the most painful position, lying down the easiest. She could walk for short distances, but not far.

The uterus was slightly anteflexed; the os was patulous and had evidently been divided, for the incision could be distinctly felt in the side of the cervix. The mucous membrane was everted, red, and abraded. The body of the uterus

was a little larger than the virgin, hardish, freely movable, and not tender. The introduction of the sound caused a good deal of pain. On each side of the uterus was to be felt a small body like an ovary, the size and shape of which could be easily distinguished by bimanual examination. One or other or both of these were always very tender. She had a free leucorrhœal discharge. A large number of remedies were in turn tried in this case, with a view to improve not only the local condition but also the general health, such as injections of hot water, laxatives, purgatives, iodide and bromide of potassium, iron, quinine, nux vomica, guaiacum, ergot, Fowler's Solution, bismuth, vegetable bitters, counter-irritation to the ovarian regions and above the pubes, digitalis, acids, alkalies, and electricity.

The membrane in this case was usually shed in pieces, but once it was expelled as a sac, forming a complete mould of the uterus. It was pale, thin, in some examples as thin as thin paper, in others about one sixteenth to one twentieth of an inch in thickness. It contained very little blood. It was composed of tubular glands lined with columnar epithelium, fusiform cells, and excess of round cells, in a distinctly fibrillated matrix; the fibrillation disappeared almost entirely on the addition of acetic acid.

In the study of the pathology of membranous dysmenorrhœa regard must be had to four things:

1. The history of the patient.
2. The structure of the product expelled.
3. The state of the uterus, and
4. The normal process of menstruation.

Much attention has been directed to the second and third; the first and fourth have been almost entirely ignored.

Several theories have been advanced respecting the pathology of the affection:

1. The membrane is supposed to be the product of inflammation, an exudation similar to that formed in diphtheria, croup, and plastic bronchitis.

There is evidence of the presence of inflammation of the

inner surface of the uterus in all the cases examined by me, and I believe in all cases in which a careful examination of the uterus and of the membranes expelled had been made by others. Cases of membranous dysmenorrhœa, however, are rarely if ever seen in their early stages; medical advice is sought after a long period, generally years, of suffering, and the inflammation is evidently in some cases a secondary condition. I believe it to be so in all; at the same time the inflammation may aggravate the condition present.

There can be no doubt that a false membrane may be formed on the inner surface of the uterus just as well as on the surface of any other mucous membrane, and that such a membrane is not infrequently formed in cases of puerperal fever, acute specific disease, and perhaps acute inflammation of the uterus brought on by injury or other cause.

But false membranes are not formed on mucous surfaces in the course of chronic inflammation; they are products of acute or specific inflammation only. Now, it cannot for a moment be maintained that women who suffer from membranous dysmenorrhœa are subject to an acute attack of metritis every month. The symptoms of such a condition are absent. Moreover, we are not warranted in assuming the presence of inflammation—acute or chronic—in the uteri of young girls when they begin to menstruate, and yet such are subject to membranous dysmenorrhœa. The analogy between the dysmenorrhœal membrane and the exudation of croup and diphtheria clearly fails, as the essential factor in the production of the latter—acute inflammation—is wanting in the former.

The casts of the bronchi expectorated in plastic bronchitis are of two kinds; they consist of fibrin, of blood regurgitated and retained in the bronchi, or of a highly tenacious mucus with a few leucocytes. They cannot be regarded as false membranes in the same sense as the exudations of croup and diphtheria. Indeed, the two appear to have nothing in common. Besides, products analogous to such casts of the bronchi are occasionally expelled from the uterus. Dr. Godson sent me a short time ago a flattened, whitish, tri-

angular mass, which appeared to be a cast of the uterus. On examination it was found to be almost pure fibrin. I have also seen a perfect cast of the uterus, and of a part of the vagina in mucus. Huchard has also described a similar case. These are the true analogues of the products expectorated in plastic bronchitis.

2. It has been affirmed that the membranes are the results of an early abortion.

As many cases of membranous dysmenorrhœa occur in virgins and in women in conditions excluding pregnancy, it is not necessary to notice this theory further.

3. The membrane is said to be the result of irritation set up by sexual congress.

The occurrence of the affection in virgins and women in whom sexual congress is excluded sufficiently refutes this view.

4. It has been supposed that the membrane is the effect of ovarian congestion, or that there is an excessive growth or hypertrophy of the decidua.

It is known that the decidua measures just before menstruation a quarter of an inch or even more in its thickest part. None of the specimens of the dysmenorrhœal membranes examined by me, with one exception, and I know of no recorded instance in which the membrane exceeded one eighth of an inch in thickness. In Case 11, where a post-mortem examination was made, the membrane was certainly not hypertrophied. The same is true of Haussman's case (see p. 163). It cannot be, then, that as a rule hypertrophy of the decidua is the condition present.

Finkler, of Kiew, states that he has found the membrane in a state of albuminoid degeneration in three cases. The diagnosis of this condition is somewhat uncertain, for it depends upon the colour produced in the tissue by iodine and sulphuric acid. I have failed to verify Finkler's observations.

It is known that a decidua is formed on the inner surface of the body of the uterus during every intermenstrual interval, and that it is removed by disintegration during menstruation; and it seems to me that we must look for the

mischief in the source of the successive deciduæ, that is, in the wall of the uterus itself.

Looking at the histories of the fourteen cases which form the bases of this paper, we find that eleven had in all probability suffered from membranous menstruation from the first or from a very early period. It is true that the patients themselves were not aware of it, but of the 11—

7 stated that the discharge contained lumps or clots from the first;

1 that there were no lumps during the first few epochs; while in

2 the character of the discharge in this respect is somewhat uncertain.

6 stated that menstruation was painful from the first;

1 that it was painful after the first few epochs;

1 that it was painful after the first twelve months, there being some doubt with regard to the presence of pain during the first epochs; and in

1 the presence of this symptom with the first menstruation, though probable, still was not ascertained.

In 5 menorrhagia was present from the first, and in 5 the function was performed irregularly; and in the 11 cases menstruation was unnatural from the first or from a short time after.

All these facts can point but to one conclusion, that is, that there was something wrong with the uterus from puberty, that, in fact, the uterus was not fully developed, evolution was not completed.

In two of the youngest cases I found the uterus somewhat small. The arrest of evolution takes place when the organ is on the verge of full development. The extra work thrown upon the uterus in the expulsion of the membrane is quite enough to give rise in the course of years to the enlargement generally met with.

Two were apparently due to imperfect involution after delivery.

One seemed to depend on a previous attack of acute inflammation after wearing some kind of pessary.

To these three states of the uterus, imperfect development, imperfect involution after labour, and imperfect resolution of inflammation, there is one, and so far as I know, only one, common abnormal product, and that is an excess of fibrous tissue in the wall of the organ. It is known that fibrous tissue is in excess in the wall of the subinvoluted uterus, and the condition has been called areolar hyperplasia; it is also not uncommon for other organs to be affected with areolar hyperplasia after imperfect resolution of acute or chronic inflammation; I am not aware of any microscopical observations made on a uterus which had been subjected to acute inflammation, and where the inflammatory process had run its course to resolution, but it may fairly be inferred that its effects would be similar to that produced by a similar process in other organs. Again, in the fœtus and the infant the wall of the uterus contains a greater proportion of fibrous to muscular tissue than after puberty; at puberty the muscular and glandular parts of the organ are developed rather than the fibrous, and this proportion becomes inversed. Should evolution fail the proportion of fibrous tissue remains excessive, a condition observed by Klob in imperfectly developed uteri.

Post-mortem examinations have been made in two subjects of membranous dysmenorrhœa, one related by Haussman of Berlin, and one already related by myself in this paper (Case 11).

Haussman's case is as follows. (Abstract.)

"On May 27th, 1870, I made a post-mortem examination on a woman who began to menstruate in her fifteenth year. She was regular. She was confined two years before her death of a dead seven months' child: she became ill during the puerperal period, and had complained since of abdominal pain. According to her own account she was regular, and had menstruated last on May 6th. On May 22nd an ovarian tumour was removed from her; a few days after she died.

"There was general peritonitis; the left ovary had been removed, the right was cystic. The uterus measured 7·5 c. m. in length, its substance was indurated; the mucous membrane

pale, that of the body raised in the middle, firmly attached on the sides and fundus. The thickness of the loosened portion amounted to 1·0—1·3 mm., of the portion beneath it adherent to the muscularis 1·5—2·0 mm. The cavity contained a little mucus, with ciliated epithelium, blood, and mucous corpuscles."

This uterus was not enlarged, but the induration of its walls seems to indicate excess of fibrous tissue, the result probably of an inflammatory process during the puerperal period.

The uterus of Case 11, examined by myself, appeared also to contain excess of fibrous tissue in its walls.

Again, is the presence of an excess of fibrous tissue in the uterine wall an efficient cause for the expulsion of the decidua as a whole, or in pieces, instead of as *débris?* It seems to me that it *is*, for the following reasons:

Fibrous tissue perishes in mass; though it perishes readily it does not disintegrate and dissolve readily. This is frequently seen to be the case in the course of ulceration and sloughing; it is the fibrous tissue that comes away in big pieces, and fails to disintegrate.

The presence of an excess of it in the uterine wall probably gives rise to the fibrillar character of the matrix of the decidua, and is the cause of the resistance offered by the membrane to the disintegrating process going on during menstruation.

Treatment.—The treatment should, in the first place, be prophylactic—the treatment of those conditions which are likely to cause excess of fibrous tissue in the uterine wall. Every means should be adopted to favour the physical development of the young girl. The puerperal state should be carefully watched, and acute inflammations attacked as soon as they arise, with a view to favour complete resolution.

Once the condition is established, the only means whereby a cure is likely to be effected is electricity, either in the form of the continuous current or as developed by a galvanic stem. The continuous current has proved successful in the

hands of Solowieff, but in mine it has quite failed, possibly because it was not persevered in for a sufficient length of time. Owing to the fact that the treatment to be successful must be of long duration, a stem pessary may perhaps prove more advantageous than the continuous current.

The conclusions arrived at are:

1. The dysmenorrhœal membrane is not the product of conception, but the decidua ordinarily shed as *débris* with every menstrual epoch.

2. It is expelled as a whole or in masses, in consequence of the presence of an excess of fibrous tissue in the wall of the uterus; this excess is due to imperfect evolution at puberty, imperfect involution after parturition or abortion, or it is the product of acute inflammation.

3. The membrane is neither the result of an ovarian congestion, nor of an hypertrophy of the ordinary decidua.

4. The chronic inflammation present is usually the result of the monthly expulsion of the decidua from the uterus, and plays an accidental part only in its production; the inflammation may, however, be independent of the expulsion of the membrane, but usually it has no causal relation to the formation of the latter.

5. Sterility is not necessarily associated with the affection, but is the result of the condition induced by the expulsion of the membrane from the uterus—inflammation of the uterus and ovaries.

6. The membrane may be expelled without pain.

7. Inflammation of the uterus greatly aggravates the suffering caused by the passage of the membrane along the cervical canal.

8. Great relief may be obtained by curing the inflammation of the cervix, though the membrane continues to be expelled every month.

9. In order to effect a cure, the structure of the whole of the body of the uterus must be altered.

Dr. CLEVELAND remarked, that the expulsion of a membranous

cast might place the medical attendant, if unacquainted with the nature of the case, in a position of some difficulty. He himself had been called, about a year ago, to a young lady just returned from Paris, whose mother was not a little anxious on account of a complete membranous cast having escaped during menstruation. As regards remedies for allaying the sometimes excessive pain of dysmenorrhœa, he had found morphia suppositories of service.

Dr. Barnes said, that the paper illustrated the fact, that a good paper was most difficult to discuss, being so little open to criticism. One proposition correctly laid down in it was of extreme importance, namely, that the dysmenorrhœal membrane may be passed by virgins. Nothing was proved to be the product of conception unless either the embryo or the chorionic villi were found in it. There were, however, two, if not three kinds of dysmenorrhœal membrane. One presented a fibrinous character, without any trace of the elements of the uterine mucosa, yet this might form a perfect cast of the uterine cavity. Another was composed of clot simply. The chief result of Dr. Williams's work was his theory that membranous dysmenorrhœa was due to excess of fibrous tissue in the wall of the uterus. This view was new. This would explain the singular obstinacy of the disease. Dr. Barnes thought that some cases were due to stenosis of the os uteri, and the constant effort of the uterus to expel its contents which resulted therefrom. The cure of these cases consisted in first dividing the os externum with scissors, and then altering the nutrition of the uterus by means of a galvanic stem. There were also peculiar general conditions of the system which were often overlooked in these cases, such as increased menses and vascular tension, and these were enhanced by the obstruction to the flow from the uterus. The indications, therefore, were to secure a free exit from the uterus, and then modify excitement by depletion and the administration of digitalis, bromide of potassium, and similar drugs.

Dr. Fancourt Barnes wished to ask Dr. Williams if, in making microscopical examinations of dysmenorrhœal membranes, he had found the histological structure of any of them to consist of catarrhal products. Dr. Fancourt Barnes had lately examined such a membrane with Dr. Goodhart, who regarded it as consisting of catarrhal products, and as being analogous to some forms of intestinal casts.

Dr. Hayes asked how it was so uncommon. If the pathology brought forward be the true one, membranous dysmenorrhœa ought to be very common. How could fibrous tissue influence the production of the decidua?

Dr. Aveling thought the condition was due to hyperæmia. The remedies for it were calomel and bromide of potassium.

Dr. Heywood Smith agreed with Dr. Hayes, that membranous dysmenorrhœa was a very rare affection. Taking into consideration what Dr. Barnes had said about constriction of the external os in such cases, and the fact that such membranes were not usually thrown off until the third day, he would offer as a not improbable explanation that the decidua being retained whole, might become, to a certain extent, semi-organised, requiring a more decided effort on the part of the uterus to expel it, and so giving rise to pain. He was disappointed that so little had been said with regard to treatment. He had found that the application to the cavity of the uterus of strong carbolic acid was of service; and when this failed, a light and rapid application of the Solid Potassa Caustica.

Dr. Galabin said that all would agree, in the main, with Dr. Williams's account of the pathology of membranous dysmenorrhœa; but he thought the evidence not quite conclusive as to his view of its causation, in which he separated it entirely from chronic inflammation or congestion, and connected it solely with excess of fibrous tissue in the uterus. It was not quite obvious that that common condition, a permanently fibroid state of the uterine walls, was associated with excessive fibrillation of the mucous membrane, which was constantly being renewed. As evidence that there was no hypertrophy of the decidua, Dr. Williams mentioned that the thickness of the dysmenorrhœal membrane was less than that usual in the developed mucous membrane. But it had scarcely been finally proved that the whole thickness of the mucous membrane was normally thrown off in menstruation, since Dr. Williams's own cases were open to the objection that, since death was due to acute disease, the exfoliation might have been morbid. Dr. Leopold had recently recorded a case of death from accident three days from the commencement of menstruation, in which a mucous membrane, thicker than that in the period of quiescence, still remained; and he had himself found a fair thickness of mucous membrane in a case of death six days from the commencement, and two after the conclusion of a period. As to the time of exfoliation, examination of menstrual fluid in many cases had led him to the same conclusion as Dr. Williams. He had constantly found shreds of mucous membrane, large enough to show the gland orifices, in the first two days of the period. Thus, many cases might partake of the nature of membranous dysmenorrhœa, though not recognised as such. By differences in the degree of disintegration was explained the apparent anomaly that in rare cases there may be a very small os, or a sharp flexion, with absolutely no dysmenorrhœa, while more frequently a less degree of stenosis produces dysmenorrhœa, which is cured by dilatation or incision of the cervix.

Dr. John Williams, in reply, said that the subject was a

difficult and obscure one, and the normal periodical changes of the inner surface of the uterus had a most important bearing upon it. The only abnormal products which he had met with were a great excess of round cells, and a slight fibrillation of the matrix. The dysmenorrhœal membrane consisted of the superficial layer of the decidua. Catarrhal products, that is, mucus and moulds of the uterine cavity, consisting of fibrin or clots, might be expelled, but he did not regard them as the membranes. With regard to the objection, that if his view of its causation be correct, then membranous dysmenorrhœa must be very common. He thought this was answered by Dr. Galabin's remark, that many cases partake of the nature of membranous dysmenorrhœa, though not recognised as such. Dr. Williams thought the affection was very common. He regarded it as the type of an immense number of cases of dysmenorrhœa, but that the membrane was not noticed unless expelled in large pieces, or as a complete cast of the uterus. All menstrual fluid supplied evidence of the disintegration of the decidua, and in a great majority of cases of dysmenorrhœa, in which he had had opportunity of examining it, he had found shreds of the decidua. As to Dr. Galabin's objection, that it had not been proved that the whole of the mucous membrane is normally thrown off during menstruation, he did not rest his opinion upon the comparative thinness of the dysmenorrhœal membrane. This varied much in different cases. Though objections had been raised to his view of the changes which take place periodically in the uterus, yet he thought the evidence was strongly in favour of the view that, he would not say the whole of the mucosa, but the whole of the decidua was shed. Dr. Leopold had found mucous membrane remaining on the third day of menstruation. He (Dr. W.) had himself described the very same condition in more than one instance. It was impossible to separate the decidua completely from the muscularis, on account of their intimate attachment. Even at the end of a menstrual flow, and indeed on the third day after its cessation, he had found and described shreds of decidua still attached to some parts of the uterine surface. Dr. Leopold had ignored a case recorded by him, because the patient died of typhoid fever; but if the decidua were found sound on being removed, in every uterus examined after death during menstruation, whatever the disease may have been which had caused death, the only conclusion possible was that such destruction and removal of the decidua was a normal process. He had found such disintegration in every case he had examined. Moreover, a still stronger argument in favour of his view was that, while a layer of the old still remained, a new decidua was found in course of formation immediately beneath it; and glands, with albumen epithelium, which were previously not discoverable in the muscular mucosa were found in plenty at this time in that structure.

His view that there was no hypertrophy of the decidua in membranous dysmenorrhœa was not based upon the thickening of the products expelled, but upon post-mortem examinations in which such membranes had been found in the uterus. He could not understand how retention of a membrane in the uterus could increase its cohesion and organization, as suggested by Dr. Smith. for the membrane, when menstruation begins, has undergone partial disintegration. He did not attribute this affection to a chronic fibroid condition of the uterus, but merely to the presence of an excess of fibrous tissue in the walls of the organ, which was often a primary condition of the imperfectly developed uterus.

A DIFFICULT CASE OF LABOUR IN A PRIMIPAROUS WOMAN, WHO, HAVING BEEN BARREN FOR THIRTEEN YEARS, BECAME PREGNANT AFTER BILATERAL DIVISION OF A DEFORMED CERVIX UTERI.

By George Roper, M.D., M.R.C.P.
PHYSICIAN TO THE EASTERN DIVISION OF THE ROYAL MATERNITY CHARITY; PHYSICIAN TO THE ROYAL INFIRMARY FOR CHILDREN AND WOMEN, WATERLOO-BRIDGE ROAD.

When I was requested to see this patient in labour, I was informed of her history, and I afterwards saw Dr. W. H. Day, under whose care she had been, and he kindly gave me the following report of the case, with his observations and treatment of it.

"Dysmenorrhœa; stricture of the cervix uteri; dilatation followed by pregnancy.

"Mrs. B—, æt. 36, married thirteen years, was visited by me at her own residence on January 29th, 1876, in consequence of pelvic pain, and dysmenorrhœa of long continuance. She is a fat, florid, healthy-looking woman, though her habits are most temperate, and she never indulges in beer or spirits. The catamenial periods are regular, but

most painful and scanty, and as the discharge lessens in quantity she gets stouter, and is becoming nervous and hysterical; she is disinclined for exertion, and suffers from headache and general discomfort. For some time past the vaginal passage has been very sore and tender, and she cannot bear coition. She has never been pregnant.

"On examination I found the vagina tightly contracted and inflamed, and the patient experienced so much discomfort that I desisted then from any further attempt to examine the uterus. There was considerable vaginismus; the perineum was short, but no deformity was observable in the configuration of the pelvis. A pill containing calomel at night, and a saline purge were ordered, and two days later I was able to introduce a small speculum. A good deal of spasm and vaginitis were present, and a thick purulent discharge was secreted by the mucous membrane of the canal. The whole cervix was small and rounded, and the os very tapering and sugar-loafed. From the pin-hole orifice there exuded a little white-of-egg discharge. I tried two or three uterine sounds of different shape and size, but none of them could I introduce for more than a quarter of an inch, and these all caused much pain. I now thrust through the os uteri a thin bladed knife, cutting as it entered, and divided on either side within the cervix the mucous membrane simply, but the os itself was freely laid open, and scarified in all directions. In this way from three to four ounces of blood were removed. I was now enabled to introduce the sound further, but still meeting with resistance, and the patient experiencing much pain, I made no further attempt at this visit. A piece of cotton wool saturated with glycerine was applied to the os, and for the nervous condition a mixture of bromide of potassium, sal volatile, and camphor, was ordered three times a day. The vagina to be syringed out frequently with a weak and tepid lead lotion on the following day. Rest on a hard bed, and a fluid diet were also prescribed.

"31st. Visit at 3 p.m.—I again failed to introduce a sound into the uterus from the resistance offered at the

inner os; the os and cervix were freely scarified as on the last occasion, and the other remedies continued as before.

"February 3rd. Visit at 4 p.m.—My colleague Dr. Percy Boulton now assisted me, and having put the patient under the influence of bichloride of mythelene, we succeeded in passing a sound through the tight stricture at the inner os. As no form of stem could possibly be introduced, I inserted a small sponge tent into the cervical canal, and prescribed a draught, consisting of opium and camphor, every four hours to allay the pain.

"4th. Visit at 9.30 a.m.—Removed the sponge tent and introduced a larger one.

"Visit at 4.30 p.m.—Removed the tent introduced in the morning, but could not get a stem in without using more force than I deemed advisable with a swollen and tender uterus, though I could easily get my finger as far as the inner os.

"28th.—She called on me in good health and spirits. In all respects she had much improved, and the vagina was no longer sore and painful. On the 6th she menstruated without pain, and more freely than she had done for years past. She had lost her florid and congested look, and was more capable of doing her household duties with pleasure. She became pregnant after the *first* catamenial period succeeding my operation."

On the 15th of January, 1877, I was requested by my friend, Mr. A. B. Hopkins, of Shoreditch, to see with him the patient whose previous history has been given by Dr. Day. She was at full term, and had been in active labour for twenty-four hours. The liquor amnii had been discharged some time. The os uteri was nearly fully dilated; its edge could be felt between the head and brim of the pelvis, but its full dilatation could not be completed, as the presenting part was obstructed at the brim and could not be pressed down on the os. The head was in the third obstetric position. A notch could be felt on each side of the os where it had been divided in the operation. The pelvis was generally small, but no special deformity could be made

out. The vagina was remarkably small and in a state of spasm. The perineum was very narrow, consisting of a thick, fleshy, transverse band, so that the anal and vaginal orifices were not far apart. The uterus was acting rhythmically and rather laboriously, and there seemed no probability of the head being forced through the small brim by natural efforts. Mr. Hopkins had applied forceps, but failed in locking them, and after a patient trial I could not succeed. There was much difficulty in manipulating, in consequence of the narrowness and rigidity of the vagina. She was then put under the influence of chloroform, when I succeeded in applying and locking the forceps, but was unable by any reasonable amount of traction to get the head through the brim. As the fœtal heart was beating vigorously I was anxious to avoid perforation, and to give the child a chance, I determined on podalic version. This was effected without much difficulty, the patient still under chloroform. After a foot had been drawn down through the vulva and traction made on it, in co-operation with the uterine contractions, little or no progress could be made in completing delivery. All chance of saving the life of the child was now at an end. There was a deep furrow along the sternum, caused by the severe pressure on the ribs and a bending inwards of the costal cartilages. The abdominal and thoracic viscera were therefore removed. I now found the arms were displaced above the head. Getting my fingers up to either humerus was impracticable, but at last, feeling the tip of one of the child's fingers, I passed up a long slender pair of polypus forceps, seized the finger, and thus brought down the arm. There was not much difficulty in getting down the other arm. A determined amount of tractile force failed to bring the head through the brim, so I perforated the most depending part of the occiput, well broke up the brain substance and its septa with the crotchet, with which a very firm hold was obtained; still the head resisted delivery by this means. Several attempts to apply the cephatotribe were fruitless, as the small and spasmodic vagina was too much filled to permit this.

I now determined to remove the trunk, and for this purpose applied round the neck a strong plaited wire, the size of a No. 6 catheter, attached to an écraseur. The wire broke, and I then divided the cervical structures with a scalpel. There then remained no difficulty in applying the cephalotribe and the separated head was easily removed after being crushed. The child was a male, and its large size and firm ossification were factors in the difficulty. The placenta was generally adherent, but was easily separated by the hand introduced into the uterus. The mother made a good recovery and went to church on the nineteenth day after delivery. It will be observed that there were four peculiarities of formation of the maternal structures in this case:—(1) a small or narrow and deep pelvis, one of male type, without any special deformity; (2) a sugar-loaf cervix with a diminutive canal; (3) a small, narrow vagina in a state of vaginismus; (4) a defectively formed perineum, so that the vaginal and anal orifices were in close approximation. It can hardly be concluded otherwise than that they are all correlated as developmental defects. I would ask the question, though one of a speculative kind, whether these deformities may not have resulted from some hesitation or indecision in the formative power at an early period of embryonic life? A halting in determination as to whether differentiation of these organs should be those of a male or female kind. It is not difficult to see that a further persistence in this indecision of differentiation might go on to a state of complete hermaphroditism. My chief object, however, in bringing this case before the Society is one of practical import, viz. the character of labour to be expected in cases of this kind. Individual experience of such labours must necessarily be limited, hence the collective experience of the Fellows of this Society will be desirable and valuable. In my own experience a malformed cervix is almost constantly associated with an imperfectly formed vagina; this is short, narrow or funnel-shaped, and is often in a state of vaginismus. My attention has not been drawn to a similar form of perineum as observed in this case. The formation

of the pelvis, in regard to its fitness for easy parturition, in the absence of any special deformity, is not so readily or so accurately to be judged in the unimpregnated state as when tested by labour. In many of these cases there is also another correlated condition of a physiological kind, the absence of sexual sympathy, not mere dyspareunia—a disinclination for coitus from pain mechanically caused—but a natural absence of sexual sympathy, the sexual function being passively submitted to with a degree of repulsion or abhorrence. There is also often to be observed in many of these women a condition of a moral kind, in the extreme and unfounded jealousy they manifest towards their husbands. This is probably the result of a frame of mind and feelings engendered by the disappointment, vexation, and sorrows of impotence as regards sexual orgasm. This same morbid jealousy is observed in women destitute of sexual sympathy even when they are prolific, and is often the cause of much conjugal unhappiness. The antecedents of this case, in the event of future pregnancy, will render the induction of premature labour desirable.

Dr. Barnes ssid this was a very interesting case. The correlation of imperfectly developed vagina and uterus was common, but this had not been observed with regard to the pelvis.

JULY 4TH, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

Present—48 Fellows and 9 Visitors.

Books were presented by Dr. James Henry Bennet, Dr. L. D. Bulkley, Prof. Ercolani, Prof. Faye, Mr. Robert Harvey, Dr. McClintock, Dr. Marion Sims, and Dr. Wasseige.

The following gentlemen, having returned their obligation papers duly signed, were declared admitted Fellows of the Society:—Thomas Henry Barnes, M.D. (Croydon), Walter T. Colman, M.R.C.S. (Brighton), George Kerswell, M.R.C.S. (Looe, Cornwall), Wm. W. Stainthorpe, M.D. (Wickham Market).

The following gentlemen were elected Fellows of the Society:—Edward Burd, M.D. (Shrewsbury), Foxon Foxon, M.R.C.S., Horace S. Howell, M.D., James John Ilott, L.R.C.P. Ed., and Samuel Butler Mason, L.R.C.P. Ed.

And the following were proposed for election:—Norman Collier Maclean, M.D., and William Stephenson, M.D. (Aberdeen).

A CASE OF SUPPURATION OF THE UTERINE CAVITY RESULTING FROM OCCLUSION OF THE CERVIX.

By Dr. Galabin.

The patient, Mary K—, was 63 years old, and had been a widow thirteen years. She had had eight children, and two miscarriages. Menstruation ceased ten years ago, but about five months ago she had on three occasions, at intervals of about a week, some hæmorrhage. The first time she lost about half a pint; on the other two occasions the loss was trifling. She dated her present complaint from only seven weeks ago, when she became suddenly very ill, and suffered great pain in the abdomen. Soon after, her abdomen swelled, she became unable to pass her water, and had to have it drawn off by catheter, and there was extreme difficulty in obtaining any action of the bowels.

At her admission into Guy's Hospital the lower part of the abdomen, after evacuation of the bladder by catheter, was distended by a firm tumour, symmetrically placed, and reaching about half way to the umbilicus. The lower segment of this tumour filled up the pelvis, posterior to the cervix, and distended the pouch of Douglas very far downward, almost pressing upon the perineum. The vagina was flattened against the pubes, and elongated. The cervix could be reached high up and far forward above the pubes. It appeared normal to the finger, but the space left between the tumour and the pubes was not sufficient to allow the sound to be used. On examination per rectum the tumour appeared completely to fill the pelvis posteriorly, and to be tightly pressed against the pelvic walls on all sides. Its lower segment, situated between the vagina and rectum, was globular and somewhat elastic, although very tense.

After consultation with Dr. Braxton Hicks, it was thought that the tumour was most probably ovarian, either simple or malignant, and it was decided to attempt to push it up out of the pelvis. This was done on several occasions by

pressure, both from the vagina and rectum, and from both combined, but without success. Trial was also repeatedly made of an air-ball pessary placed in the rectum, and forcibly distended for several hours together, morphia injections being given to alleviate the pain so produced. Not the slightest effect, however, was produced upon the position of the tumour, and there was still more or less retention of urine, and almost complete intestinal obstruction. The tumour was then punctured from the vagina by a small trocar, and the fluid evacuated was found to be pure pus. The opening was afterwards enlarged sufficiently to allow the insertion of an india-rubber drainage tube. Symptoms of general peritonitis soon after came on, and the patient died after a few days. At the autopsy, general purulent peritonitis was found. The tumour proved to be the uterus, sharply retroflexed and filled with pus, its walls being much thickened, roughened internally, and covered with several layers of lymph. The specimen exhibited shows the occlusion to have been due to the presence of cancerous deposit commencing about the internal os, and not manifestly affecting the external part of the cervix. The occurrence of suppuration of the uterine cavity, as the result of this occlusion, may possibly have been due to some irritation derived from the cancerous material, but the pus evacuated during life was entirely free from smell. Some adhesions had existed in Douglas's fossa, but not sufficient to shut off completely from the general peritoneal cavity the spot at which the puncture was made.

Report of Dr. Galabin's case of occluded cervical canal, with retention of pus in the uterine cavity.

The occlusion of the cervical canal at its upper part was caused by the deposition of cancerous growth in the substance of the cervical wall. Anteriorly, about an inch above the inner os, there was a small cavity in the uterine wall,

seemingly from necrosed cancerous structure. This was not directly connected with the disease of the cervix, as there was an intervening portion of healthy uterine tissue between the two seats of disease. The cavity of the uterus had been distended to the size of a full-term fœtal head; the uterine wall was everywhere thickened; its cut surfaces had a healthy appearance, resembling the evoluted uterus of pregnancy. The thickness of its walls was uniform throughout —about half an inch. The weight of the uterus alone, apart from its appendages, was nine and three quarter ounces. Posteriorly, round the point of entrance of the trocar, the uterine tissue was softened by inflammation. The surface of the cavity appeared almost universally destitute of mucous membrane. Many sections made perpendicularly to this surface showed, under the microscope, but very few epithelial cells, and only very occasionally the remains of a gland-tube. The uterine structure immediately beneath the mucous membrane was free from cancerous deposit, but was infiltrated with the products of inflammatory effusion. From microscopic observation of the disease of the cervix it was considered to be carcinoma, as the diseased structure contained much fibrous structure arranged in loculi; many of these were empty, others crowded with cells. The peritoneal surface of the uterus was everywhere healthy, except at the point of entrance of the trocar.

A thin, flat, ribbon-like band of false membrane, attached only at each end, extended from the posterior surface of the pouch of Douglas to the posterior surface of the uterus near its fundus. This band had tethered the fundus in a downward and backward direction, and thus caused its retroflexion as it became distended.

In puncturing the distended uterus the trocar had unavoidably traversed the fossa of Douglas before entering the cavity of the uterus.

G. Roper.

A. L. Galabin.

SPECIMEN OF TRANSPOSED VISCERA FROM A PREGNANT WOMAN, WHO DIED SUDDENLY NEAR THE FULL TERM. POST-MORTEM OPERATION OF CÆSARIAN SECTION; THE CHILD SAVED.

By Edward Buckell, Esq., Winchester.

(Reported by Dr. Squire.)

This specimen of transposed viscera in a woman advanced in pregnancy was sent to me three weeks ago by my friend Dr. Edward Buckell, of Winchester. The aorta, turning to the right behind the right bronchus, is the seat of disease; dilatation occurred, causing insufficiency of the aortic valves, hence the sudden death. Dr. Buckell, after ineffectual efforts for ten minutes in restoring the mother's life, urged the necessity of attempting to save that of the child, and succeeded in extracting a living child by the Cæsarian section within half an hour of the death of the mother. We have in our 'Transactions' ten cases of the ordinary Cæsarian operation, with two recoveries of the mothers; of six living children removed, three survived the month, and may be living now. The child in the present case commenced life some time after her mother had ceased to breathe. No instance has hitherto been brought before our Society of the post-mortem performance of the Cæsarian section. The circumstances under which it is likely to be successful rarely concur; many diseases fatal to the mother are so to the child. Death from causes not directly affecting the child's life is generally sudden, and the doctor is not often summoned in time to attempt the rescue, though he would consider this his first duty after finding that the life of the mother was irretrievably gone. In 1862 M. Villeneuve, of Marseilles, published a memoir in which were collected fourteen instances of children saved in this way; of these, four were removed by the operation performed immediately after the

death of the mother; five, in from ten minutes to half an hour after; two, after two hours; one, after two hours and a half; one, after three hours; one, after four hours and a half. These statements might warrant more frequent attempts of the kind, for it is not impossible that intra-uterine life may be maintained under some circumstances for a still longer time after the death of the mother; it is said for ten and twelve, or even twenty-four hours, though this is improbable. By far the best prospect of success is within the first twenty minutes of the mother's death. It will be seen that in the present case, barely half an hour had elapsed and yet resuscitation was difficult. The great value of the communication is in the accuracy with which all the facts of the case and the precise times are recorded.

Dr. Buckell's Notes.—"On the 14th of June, at 11.45 a.m., I was hastily summoned to attend upon E. G—, a single woman of 27 years of age, who had been taken suddenly ill in the public street, and was removed into an adjoining shop. On arriving within ten minutes from the time of receiving the message, I was informed she had been removed home in a carriage to her friends' house, whither I at once proceeded. In the mean time she had been conveyed into the house and placed on a bed on the first floor. On entering the apartment I found her lying supine, with limbs extended, face, arms, and hands livid, frothy mucus running from the mouth and nostrils, eyes staring and fixed, pupils dilated, and no trace of pulsation or of respiratory movement discoverable; in a word, to all appearances quite dead. The person who carried her from the carriage to the house along the garden path, believes she actually expired before he reached the house, she having given a deep convulsive sigh when midway, and no movement of any sort afterwards. I at once endeavoured, by recognised modes, to induce respiratory movements, applying as well sponges dipped in boiling water to the region of the heart. About ten minutes were occupied in these efforts at resuscitation. All efforts proving abortive, and hearing the

poor woman was expecting her accouchement very shortly, I at once examined per vaginam, and found the os uteri dilated to the size of a florin—the membranes easily felt to be entire. The vagina was moist with mucous discharge, and there had been no hæmorrhage. It would seem that, during her walk, labour had commenced. The head was found presenting. On applying the stethoscope to the abdomen the pulsations of the fœtal heart were clearly heard. I conferred, therefore, immediately with the friends on the advisability of performing the Cæsarian section, with the view of saving the life of the child. After some delay, it was agreed to leave the matter with myself. In the meantime the fœtal circulation had lost much of its power and regularity, still it was readily made out. At this time, as nearly as I could reckon, the mother had been dead some twenty to thirty minutes, when I began the delivery. This I did by making an incision by means of a pocket bistoury, from the umbilicus to the pubis through the abdominal walls, exposing at once the anterior globular surface of the uterus, which was then cut through. The placenta being found attached to this portion of the uterine walls, I passed my hand through it and at once seized and removed the child, the operation occupying about three minutes. Pulsation in the cord was scarcely perceptible, and the heart itself beat very feebly. Without delay I commenced endeavouring—at about 12.15—to excite respiratory movements by means of direct inspiration, alternated with Hall's and Silvester's methods. At the expiration of rather more than an hour, for it was 1.30 before I left the house, I had managed to bring about pretty regular breathing and pulsation in the infant. I may remark that I derived considerable advantage from the alternate use of hot and cold sponges applied to the chest of the child. At the date of writing these notes, July 1st, the infant is quite well, with perfectly easy breathing, and is making very fair growth.

"*Post-mortem Notes.*—Eight hours after death I made a post-mortem examination of the body. The woman had been a domestic servant, was of middle height, fair com-

plexion, and appeared nicely proportioned and well nourished. The mammary glands were fully developed and rather hard. On the right side there was a second, very much smaller, but distinct nipple, about one inch and a half below the natural one. There did not appear any glandular structure underlying this supplemental or supernumerary nipple.

"On removing the sternum and portions of the ribs in the usual way, the heart was found on the right side in place of the left; the aortic ventricle being the part first in view, and placed on the right side of the heart; its walls were much hypertrophied and its cavity contracted and empty of blood. The pulmonary ventricle was on the left side of the heart and behind, its cavity being also found empty. The arch of the aorta turned from left to right over the right bronchus. The left wall of the ascending aorta was much thinned and dilated, almost sacculated. The left subclavian and carotid were derived from the innominate, the right being given off separately. The valves of the heart were not diseased, except the aortic semilunar, which were rough, very much thickened, and only two could be clearly distinguished. This, with the dilatation of the aorta, caused an insufficiency which was suddenly fatal. Although all other viscera were transposed, the lungs were in their normal position, the large three-lobed lung occupying the right side.

"The left lung was adherent throughout most of its surface to the costal pleura, apparently from former attacks of pleurisy. The right lung had some adhesions, but not very extensive, although of much more recent date. During life, as I was informed, the woman had complained of shortness of breath, occurring in paroxysms, preventing her frequently from lying down in bed, especially on first retiring. Otherwise she had enjoyed good health. Her mother is reported to have died also very suddenly from hypertrophy of the heart; it was found enlarged post mortem, not displaced.

"On removing the heart and lungs, the thoracic aorta was found to be on the right side of the spine, with the œsophagus in front and to the left. The stomach was reversed in its

position, the pyloric end being to the left of the cardiac. The liver occupied entirely the left hypochondrium, and was relatively transposed, *i. e.*, the right lobe became the left and the left the right. The spleen was on the right side in place of the left. The small intestine terminated on the left side, and the course of the colon was reversed, the gut ascending from the left side and terminating on the right in the sigmoid flexure, which turned towards the rectum from right to left. Of course the ilio-cæcal valve and vermiform appendix were found in the left iliac region. The time allowed for the autopsy was so limited as not to admit of more minute and careful investigation.

"The woman was not left-handed, and there was nothing during life which had discovered the condition found after death."

The convexity of the thoracic vertebræ was normal. This was noted in only four of the seventy cases collected by Dr. Beaunis; it is so in the case recorded in the 'American Journal of Medical Sciences' for October, 1877, where the left lung only had an incomplete third lobe. The child rescued by Dr. Buckell only survived three months. There was no transposition of viscera in this.

The heart and lungs are in the museum of University College, London.

The PRESIDENT thought the case of great interest, as showing that a child could be extracted alive a considerable time after the death of the mother.

Dr. AVELING said that it is believed that a child may be born alive an hour after the mother's death.

Dr. PLAYFAIR said he knew of one case in which a live child was extracted after the death of the mother.

Dr. ROUTH said much depended on the manner of the mother's death in these cases. If she died in the full vigour of health and suddenly, even after the mother's death the child might be extracted and alive, at any rate resuscitated, even several minutes after. It was known that a child might be kept under its waters for an hour and yet resuscitated, and cases were on record of children being extracted alive *hours* after the death of the mother. In the only case in which he (Dr. Routh) had per-

formed post-mortem Cæsarian section, the patient was dying from apoplexy at the base of the brain. The whole respiration was therefore impeded, and she died of marked asphyxia. He (Dr. Routh) was prepared to operate the moment death of the mother occurred, and he did so, but the child was dead, the same cause, *asphyxia*, producing excessively carbonised blood having killed the babe.

Dr. Daly related a case in which he had performed Cæsarian section; the patient, while under the care of a medical neighbour, died, almost suddenly, of rupture of the uterus. Twenty minutes after death Dr. Daly opened the abdomen, and removed the child. It was dead; there was no pulsation in the cord, neither was the fœtal heart beating. The child was well developed, and at full time.

Dr. Playfair exhibited a specimen of elephantiasis of the vulva, which he had removed ten days before from a married woman, æt. 35, the mother of four children. The growth, which was the size of a small melon, commenced before marriage in the right labium. After the birth of the first child it began to increase in size, and to get irregular and warty on its surface, and, at the time of its removal, both labia major and minor to the entire space anterior to the orifice of the urethra, and greatly incommoded the patient from its size. Dr. Playfair removed it with a bistoury, securing five or six arteries, which bled profusely, by ligature. The growth, Dr. Playfair remarked, was similar in appearance and structure to the scrotal tumour so common in India, which sometimes attained very large dimensions, and obviously commenced in those parts of the vulva which were analogous to the scrotum. He had seen many of these tumours in India, but was unable to say whether these growths occurred also in the female vulva, which they might perhaps do, as in India the surgical diseases of females seldom come under observation.

ADDITIONAL CASES OF OVARIOTOMY PERFORMED DURING PREGNANCY.

By T. Spencer Wells, F.R.C.S.,
SURGEON TO THE QUEEN'S HOUSEHOLD AND TO THE SAMARITAN HOSPITAL.

A great deal of important practical information upon the complications of pregnancy and labour by ovarian cysts and tumours may be found in several of the volumes of the 'Obstetrical Transactions.' Some of the papers are extremely valuable, and the reports of the discussions to which they gave rise are well worthy of careful study. In the eleventh volume there is a paper "On the Complication of Pregnancy with Ovarian Disease," which contains some account of eight cases which had occurred in my own practice. In two of these cases I performed ovariotomy during pregnancy, and both patients recovered. In one of them a living child was born after a natural labour six months after ovariotomy. I now offer to the Society a short account of seven other cases in which I have performed ovariotomy at different periods of pregnancy. These, and the two already published in the 'Transactions,' are arranged in a table giving the name of the medical attendant of the patient, her age, the period of pregnancy when ovariotomy was performed, the weight of the tumour removed, and the results to mothers and children.

Full reports of the first and second cases in the table having been published in the eleventh volume of the 'Transactions,' by myself, of the third case, in the thirteenth volume, by Dr. Goddard, and of the fourth and fifth cases, in my work on 'Diseases of the Ovaries,' it is now only necessary to give the particulars of the four cases which have not yet been published. I have added a column in the table, in which the history of each patient is given up to the present time.

Cases of Ovariotomy during Pregnancy.

No.	Medical attendant.	Age of patient.	Period of pregnancy.	Date of ovariotomy.	Weight of tumour.	Result to mother.	Result to child.	Subsequent history.
1	Mr. Cook, Clovelly.....	24	4th to 5th month	Aug., 1865	28 lbs.	Recovery	Fœtus removed at same time	Well in 1876.
2	Mr. Bateman, Islington...	36	3rd month	Aug., 1869	37 lbs.	Recovery	Alive; natural labour, Feb., 1870	Died of cancer of uterus, March, 1871.
3	Dr. Goddard, Pentonville	28	3rd month	Dec., 1870	15 lbs.	Recovery	Alive; natural labour, July, 1871	Other children born, May, 1873, and August, 1876.
4	Dr. Ross, Bloomsbury ...	38	3rd month	May, 1871	34 lbs.	Recovery	Alive; natural labour, Dec., 1871	Another child born, Jan., 1877.
5	Dr. Moore, Ipswich	29	4th month	March, 1872	10 lbs.	Recovery	Alive; natural labour, May, 1872	Another child born, May, 1873. Well, June, 1877.
6	Mr. Coleman, Woolwich	32	7th month	Aug., 1872	26 lbs.	Recovery	Seven months' child born day after operation	Living children born, Dec., 1873, and March, 1876. Another expected July, 1877.
7	Dr. Kidd, Dublin	38	6th month	March, 1876	40 lbs.	Died seven days after	Fœtus expelled six hours after operation	—
8	Dr. Roberts, Cheshunt ...	41	4th month	Oct., 1876	7 lbs.	Recovery	Child born April, 1877; labour natural	Well, June, 1877.
9	Surgeon-Major Perry.....	27	7th month	Dec., 1876	12 lbs.	Recovery	Child born 25 days after	Well, May, 1877; menstruation regular.

Case 6.—A married woman, æt. 32, mother of seven children, was sent to me by Mr. Coleman, of Woolwich, and was admitted to the Samaritan Hospital on the 31st of July, 1872. The abdomen was extremely distended and very tender, and the patient suffered so much that I tapped immediately above the umbilicus, and with a large trocar. Only a few ounces of thick colloid matter came away, and some bleeding followed the removal of the canula. The pressure of a pin passed through the skin not checking the bleeding, I passed one through the whole thickness of the abdominal wall, and thus stopped all bleeding. The suffering not being at all relieved, I performed ovariotomy on the 3rd of August, the patient believing herself to be about six months pregnant. A thin-walled multilocular cyst of the right ovary, weighing twenty-six pounds, was broken up and removed, after separating some adhering omentum, which was afterwards secured by fine ligatures. A clamp was first applied to the pedicle; but, when this was brought out, it so twisted the uterus round to the left that I removed the clamp, after securing the pedicle behind it by transfixion and ligature about an inch from the uterus. The left ovary was closely applied to the side of the uterus. A dark clot adhered inside the abdominal wall behind the seat of the tapping. More than usual pain followed the operation, and about twenty-four hours after it labour-pains regularly came on. Dr. Bantock punctured the membranes twenty-six hours after ovariotomy; in a few minutes the child was born, the placenta soon following. The child only lived three hours. Severe hæmorrhage led to tight bandaging of the abdomen, and several successive doses of ergot with the free use of stimulants; on the second and third days tympanites was excessive and distressing. The bowels acted on the fifth day, and on the sixth day free discharge from the upper part of the wound occurred. After this, recovery was rapid; the patient soon became pregnant again; a strong boy was born in December, 1873, and another in March, 1876. Mr. Coleman has just written to

me to say that she is again advanced in pregnancy, and expecting her confinement in the first week of July.

Case 7.—As this case has been very fully reported by Dr. Kidd, of Dublin, who has made it the subject of a valuable paper published in the 'Proceedings of the Dublin Obstetrical Society,' I need now only give the leading facts:

On the 20th of March, 1876, I received a letter from Dr. Kidd, informing me that he had been called to Cork on the 5th of that month to see a lady, "with a view chiefly to the induction of premature labour." Doubts had been felt as to the period of pregnancy and to the existence of ascites. Dr. Kidd recognised the presence both of free fluid in the peritoneal cavity and of a multilocular ovarian cyst, with a pregnancy of about the fifth month. "Her abdomen was enormously distended, so much so as to impede respiration. The lower part of the abdominal wall was œdematous, and also the legs and feet. The distension was so great," he adds, that "I recommended immediate tapping, and I drew off about five to six quarts of fluid. Most of this was evidently peritoneal, but I opened one after another four cysts in the tumour. This gave great relief, and I could then trace what I believed to be the gravid uterus. I could hear the placental murmur distinctly, and the fœtal heart faintly." The patient obtained great relief from the tapping, and was able to travel to Dublin, a six hours' journey, on the 18th. Writing on the 19th, Dr. Kidd adds that the abdomen "is filling up very quickly, the œdema is returning, and the breathing becoming distressed. If she is to be operated on at all, I think it must be done soon." On the 20th I received an urgent message by telegraph, and saw the patient in Dublin on the evening of the 21st. I found a lady, 37 years of age, very much emaciated, in a state of extreme suffering from breathlessness, with a very feeble pulse, between 140 and 150, the legs and abdominal wall œdematous, and with vomiting and other signs of obstructed intestine. Indeed, she was so ill that I hardly expected her

to live through the night; and, with a view of gaining time, I tapped and removed from the peritoneal cavity between eight and nine pints of viscid ovarian fluid. A large multilocular ovarian cyst and the pregnant uterus could then be felt. My diagnosis, written down at ten that night, was—"Ovarian cyst burst into peritoneal cavity—Peritonitis—Obstructed intestine—Six months' pregnancy." The next morning the patient appeared much relieved by the tapping, and ovariotomy was decided on after consultation with Dr. Kidd. Dr. Macnamara administered methyline; and, with the assistance of Dr. Kidd and Dr. Roe, I removed an ovarian tumour and fluid from the peritoneal cavity to the amount of forty pounds. The pedicle and some portions of adherent omentum were tied, and all the ligatures were returned. A great deal of recent lymph was wiped away from the surface of the peritoneum, and the wound closed. About four hours afterwards uterine pains came on, and a fœtus of about five months was expelled without hæmorrhage. Until the third day the progress was very favorable. The patient was easier than she had been for months. The pulse became less frequent, and the temperature fell to 99°. Then, on the afternoon of the third day, there was vomiting and the discharge of serum through a part of the wound, which continued till the seventh day. Dr. Kidd says she was "evidently run down by the constant drain of serum, like one suffering from hæmorrhage. There was no fever, no peritonitis, no symptom of pyæmia."

If a similar case were to fall again under my care, I should be disposed to leave a tube between two of the stitches, to provide for drainage from the first, and thus prevent any considerable accumulation of fluid.

Case 8.—In the last week of July, 1876, a lady was brought to me by Dr. Roberts, of Cheshunt, with a note from Dr. Priestley, stating that she had an ovarian tumour, and that there was a suspicion of early pregnancy, the catamenia having been regular until about six weeks before, and then having ceased. The lady was 41 years of age, the

mother of six children, the youngest being eight years old. She aborted once in 1875, and three or four times previously. As there was no very urgent symptom, I advised Mr. Roberts to wait, and it was not until September that relief was called for. Then, as the patient shrank from ovariotomy, I tapped the ovarian cyst, and removed five and a half pints of viscid ovarian fluid. The puncture did not close for about three weeks. There were signs of local peritonitis, occasional vomiting and discharge of fluid from the puncture, with a rapid pulse and high temperature. As pregnancy advanced discomfort increased, and I performed ovariotomy on the 12th of October, assisted by Dr. Bantock, Mr. Thornton, and Dr. Junker, Dr. Day administering methyline. As the fundus uteri could be felt midway between the pubes and umbilicus, the incision was necessarily higher than usual. It extended from the umbilicus downwards for four inches. When the cicatrix of the tapping puncture was divided, a good deal of ovarian fluid escaped. The cyst was adherent there to the abdominal wall, but not to a great extent. When empty it was held forwards by forceps, opened, the inner septa broken up, and the tumour was easily drawn out. Rather a long pedicle on the right side was secured in a clamp and kept out without traction. Very little blood was lost; the left ovary was healthy, and lay close to the side of the enlarged uterus; the fundus uteri reached up to within between two and three inches from the umbilicus. The only peculiarity in the operation was an unusual tendency of the intestines to escape, and the difficulty of finding a sponge which had been used to keep back the intestines. After a long search I found it high up behind the lower edge of the liver. The cyst and its contents weighed seven pounds. The progress after operation was one of uninterrupted recovery; the lady went to Cheshunt twenty-six days after ovariotomy. Dr. Roberts attended her in her confinement on the 1st of April, 1877. He wrote that, "She had a very good time indeed, and made an excellent recovery." Writing on the 2nd of June he says, "She looks very well, gains flesh and

strength, and the baby is the strongest and healthiest of any of her children."

Case 9.—In October, 1876, the wife of a soldier was sent to me by Surgeon-Major Perry, of the Scots Fusilier Guards, on account of a flaccid ovarian cyst, which had been observed since the birth of her only child two years before. She had been married four years, and was 27 years of age. She had ceased to menstruate in July, and appeared to be in the third month of pregnancy. As the cyst was not tense, and there were no distressing symptoms, I advised her to wait; she did so, but became much more suffering as pregnancy advanced, and she was admitted to the Samaritan Hospital on the 5th of December, 1876. The uterus then reached seven inches above the pubes, and to within three inches of the umbilicus. A large fluctuating cyst reached from the fundus uteri to the ensiform cartilage. The fœtal heart sounds were distinctly audible in the right iliac region. The patient thought she "quickened" ten or twelve days before. On the 11th of December I performed ovariotomy. The incision extended from two inches above to three inches below the umbilicus, just exposing the upper rounded surface of the fundus uteri. A thin cyst was tapped, emptied, and drawn out. A thicker portion behind and to the right could only be removed after tying and dividing close to the abdominal wall some long bands of adhesion. A short pedicle on the left side was transfixed and tied in two portions; the tumour was cut off near the ligature, and the ligature returned. Scarcely any blood was lost; the right ovary was healthy, and closely applied to the side of the enlarged uterus. The wound was closed by silk sutures, nearer to each other than usual, as the abdominal wall was thin, and the enlarged uterus caused some tension, even after the removal of the ovarian cyst. The cyst was dermoid, it weighed two pounds six ounces, and the largest cavity had contained nine pints of fluid. There was some pain, and more opium than usual was given. Sickness and fever, with albuminous urine, led to the use of ice to the head, and

she was not free from fever till the fifteenth day. After that she recovered well. On the twenty-fifth day she got up in the morning, there being still a little albumen in the urine; but uterine pains came on, and a child was born alive in the afternoon. There was very little hæmorrhage, and the placenta followed in about twenty minutes. Dr. Percy Boulton, who delivered the child, reported it as "a female of average twenty-eight weeks' development, healthy, length thirteen inches, not weighed." It only lived twenty-six hours. The mother recovered well and left the hospital two months after ovariotomy, eighteen days after childbirth. In May, 1877, Dr. Percy wrote to me, reporting her as quite well, and menstruation regular.

In conclusion, I will only add that these nine cases represent the whole of my practice of ovariotomy during pregnancy; and that, as eight of the mothers recovered—as pregnancy proceeded in five, and living children were borne after natural labours—as in the two where labour came on a few hours after ovariotomy there was no unusual hæmorrhage nor difficulty—and as four of the patients have borne healthy children at various periods since the labour which followed the ovariotomy, I venture to express the hope that these facts will be duly considered by any Fellow of the Society who may have to decide upon the best mode of treating a case of pregnancy complicated by ovarian tumour, and that they may have a just influence in the formation of professional opinion upon a question of such great practical importance.

Dr. Playfair asked Mr. Wells if he could kindly give the Society his experience of alternative methods of operation in such cases, especially of the induction of premature labour. No doubt the performance of ovariotomy during pregnancy seems, at first sight, a very hazardous and bold proceeding; but he thought, on the whole, that it afforded the best chance for the safety of the patient. In a former paper, published in the Society's 'Transactions,' he had pointed out that the mortality of labour complicated with ovarian tumour was, under certain circum-

stances, very considerable, more than half of the cases which he had collected, in which a small unpunctured cyst had been jammed down in front of the presenting part, having proved fatal. This was, doubtless, owing to the contusion to which the cyst was subjected producing a low form of inflammation. Probably a large cyst filling up the abdomen would be squeezed much in the same way. His own experience of induced labour in such cases was limited to one case, that of a lady whom Mr. Wells saw with him last year, and in whom they determined to bring on an abortion early in pregnancy, and that case ended fatally from some low form of cyst inflammation. It would be interesting to hear the experience of others on this point, but he himself certainly felt disposed to recommend the more radical treatment. It must not be forgotten that in the large majority of cases ovariotomy would certainly be required ere long, and that delaying it or inducing labour would subject the patient to a double risk.

Dr. MURRAY briefly referred to a case of his, where he induced labour at the eighth month, and later on performed ovariotomy with success, the child having also lived. He thought that when the ovarian mass was fluid it was safer to tap; and even if solid, *but small*, and pregnancy somewhat advanced, labour might take place before the tumour had grown sufficiently to cause any inconvenience. Out of the nine cases related, only four of the children were born alive, labour in the other cases, but one, supervening soon after the operation. The result to the mothers was doubtless most encouraging; but for himself he would rather either relieve pressure by tapping, or induce labour at as near the time as possible, when the child might be born alive.

The PRESIDENT said that Mr. Wells' results tended to show the comparative safety of ovariotomy during pregnancy. Probably the operation should be done early, for the advance of pregnancy may give rise to suppuration of the cyst and death. If ovariotomy could not be done, owing to the position of the tumour or other circumstances, premature labour might be induced.

Mr. LAWSON TAIT said that his experience in cases where a small ovarian tumour had impeded labour, by being impacted before the head, had been much more favorable than that of Dr. Playfair. He had been called in consultation four or five times, and in all the tumour was pushed up beyond the head easily after the patient was placed completely under the influence of chloroform. These, however, were not cases which touched upon the issue raised by Mr. Wells' paper. He had several times had occasion to tap tumours in pregnant women to take them over the pregnant and puerperal periods, and in no

instance with any unfavorable result. In one case he was obliged to discuss the necessity of either inducing premature labour or of doing ovariotomy during pregnancy. Without knowing Mr. Wells' results on this point, he had decided in favour of ovariotomy; and though the operation had not been successful in this case, he did not think that the result militated against Mr. Wells' conclusion, that ovariotomy was the better practice. The patient went on well till the sixth or seventh day, when a miscarriage occurred with only a few minutes' warning—only two or three pains. The patient sank in a few hours, and it was discovered on post-mortem examination that the pedicle was gangrenous. No indications of such a complication had been observed, and no cause for it could be ascertained. Had the gangrene not occurred, Mr. Tait believed that the patient would have recovered, and would have been confined at the end of her period, about two months after the operation. A cyst had ruptured in a previous confinement, and the patient nearly died of peritonitis. He would not from choice operate during pregnancy, nor during the puerperal period, but he should certainly prefer to perform ovariotomy rather than to induce premature labour, as that process carried with it its own peculiar risk, and did not do more than relieve the patient temporarily.

Dr. Carter.—Mr. President, as you have asked the Fellows for their experience in this matter, I may presume to refer to two cases of ovarian tumour complicated, or rather that have been so, by pregnancy, for both patients were delivered of healthy children two to three months ago. One of these patients has been under my observation two and a half years; she miscarried about two years ago, when three to four months pregnant, and when again pregnant at the seventh month I took her into the hospital, intending either to tap or to bring on labour, Her husband, hearing some operation was proposed, removed her; a day or two ago she came to see me with her baby, a boy, a fine healthy child; the abdomen was distended by a tumour larger than the uterus at the eighth month; her labour was natural. The second patient came to me from the country, and it is now three months since her labour; the tumour was about the size of the fœtal head when she conceived; she did well at her delivery, and the abdomen is now the size of about the eighth month of pregnancy. I should like to ask Mr. Spencer Wells what other cases he has seen or been consulted about which have not been operated upon, and what has been the result. Here we have one side only, and we should look at the subject in every light. From the cases brought before the Society to-night, the results from operating are so good, better even than those in ovarian tumour uncomplicated by pregnancy, that one would be rather inclined to operate than to withhold doing so.

Dr. Galabin asked Mr. Spencer Wells if he attached much importance, in making the choice of operation, to the stage of pregnancy reached. Of the cases tabulated, miscarriage occurred in all in which ovariotomy had been performed later than about the fourth month, but in none of the others. In Mr. Lawson Tait's case, at the seventh or eighth month, miscarriage and death followed; and in one by Dr. Wilhelm Banon, in which ovariotomy was performed antiseptically at the fifth or sixth month, miscarriage followed, and the patient had a very narrow escape. It would therefore seem that in ovariotomy after the fourth month miscarriage might be expected, and the supervention of the puerperal state could not but add to the danger. If this were confirmed, it would seem preferable, at such a stage, to induce premature labour, and not to delay ovariotomy, if indicated in the earlier months.

Dr. Heywood Smith asked whether Mr. Spencer Wells was guided by the rapidity of the growth of an ovarian tumour in giving an opinion as to the necessity of ovariotomy during pregnancy. If a tumour was growing rapidly, the choice must be taken between ovariotomy and tapping (if labour was not to be induced). If the tumour was tapped its rapid growth might necessitate retapping or ovariotomy too soon after labour. He considered that during the puerperal state any operation was extremely hazardous. The puerperal state he would extend to fully two months after delivery, *i. e.* during the process of involution of the uterus. It appeared, therefore, to him, that ovariotomy was much safer during pregnancy than at any time within two or three months subsequently. Then with regard to tapping, in cases of inflammation of the cyst, in cysts containing puriform fluid, or in rapidly growing cysts, when ovarian cells might be expected in a state of active proliferation, tapping would be also hazardous, as, from the hole in the cyst, fluid might exude into the peritoneal cavity, which would probably set up peritonitis. As to the size of the tumour, a moderately large tumour seemed less dangerous than a small one, as the latter was more likely to slip down before the presenting part of the fœtus, and so complicate delivery. The terse and emphatic paper of Mr. Wells, backed by the thirteen cases recorded in a previous paper by Dr. Playfair, proved, if they proved anything, that the mortality was less in those cases in which ovariotomy was performed. He trusted, however, that the fiat of the Society, as to this mode of practice recommended, would not be given until the other side of the question had been fairly and fully considered. Even in the room to-night two gentlemen, Mr. Lawson Tait had given four, perhaps five cases, and Dr. Carter two cases, in which recovery followed favorably, and in which the patients were delivered safely, notwithstanding the

presence of ovarian tumours. Clearly, therefore, it was wiser to collect the experience of other members of the Society before a conclusion could be arrived at as to which plan was the best practice. A greater experience might bring out an exact converse result to that arrived at by Mr. Wells. Besides, not everybody could hope to operate as successfully as Mr. Wells, and the practice recommended should be that likely to succeed best in the hands of most ordinary practitioners. He (Dr. Smith) had brought on premature labour at about seven and a half months in one case with safety, where the tumour was very large; the child did not live more than two days; three months later he operated upon the mother. She unfortunately died of septicæmia; but the case, so far as it bore upon Mr. Wells' class of cases, justified rather the opposite plan of treatment.

Dr. CHAMBERS thought the Society much indebted to Mr. Wells for his valuable contribution. His results would greatly aid and encourage those who might be called upon to deal practically with the class of cases under consideration. He thought that every man who had seen anything of this kind of practice ought to record his experience, whether favorable or otherwise. He had a case of ovarian disease associated with pregnancy in 1876. The patient was 34 years of age, pregnant four months, first time. She first came under observation February 24th. The abdomen measured forty-two inches, at a line midway between the umbilicus and pubis; uniform dulness and fluctuation. Dr. Barnes saw the case in consultation February 26th. Tapping was agreed upon. Tapped February 27th; seventeen pints of thick turbid fluid were drawn off, to the great comfort of the patient. February 29th a fœtus of about four months was expelled, followed by the placenta in a few hours. No hæmorrhage or other inconvenience. She recovered from the tapping and abortion pretty well, and for about three weeks appeared to progress satisfactorily. She now began to have restless nights, with more or less shivering and night perspirations. The abdomen began to enlarge, and there was general tenderness when touched; a small quick pulse, frequently reaching 120. Temperature was fluctuating, but always higher than normal, reaching 102° from time to time; she lost flesh rapidly. These associated conditions pointed to the formation of pus, most probably in the cyst. By the first week in April the abdomen had so much enlarged, and the general health had so much given way, that the question of retapping or ovariotomy had to be considered. Dr. Barnes again saw her in consultation, and it was agreed that ovariotomy should be performed as early as arrangements could be made. On the 10th, at 10 a.m., I removed the tumour, assisted by Drs. Barnes and Aveling. Æther was administered by Mr. Brain. The operation was a very simple one; there were

no adhesions. The tumour consisted of one large cyst filled with pus, and a moderate growth of solid matter. The pedicle was secured by a Wells' clamp. She rapidly recovered from the effects of the anæsthetic, and progressed satisfactorily for forty-eight hours, when the pulse and temperature began to rise; the features became pinched, and the body covered with a cold perspiration. It was but too evident that the game was lost. She passed from bad to worse, and quietly died in twenty hours from the accession of the untoward symptoms. There can be but little doubt that if ovariotomy had been performed at first, when the general health was fairly good, this patient would have had a better chance of life than she had under the circumstances in which she was found when the operation became imperative.

Dr. Savage thought that the conflict in opinion displayed in discussing the subject of Mr. Wells' important communication had barred every approach to the settlement of a rule of practice in cases of ovarian tumour occurring during pregnancy. The remarks made by those professing personal experience, much or little, about the question appeared to him to point in antagonistic directions. Mr. Wells' paper was accompanied by a statistical table of nine cases of ovariotomy performed at different periods of pregnancy, from the third to the seventh month inclusive. There had been one death only, and that probably due to a previous tapping or to delay, the distress warranting prompter intervention. The President, it was to be hoped, had been exercising his mind over these antagonistic sentiments, and might, perhaps, after all, be able to land the Society on some safe stand-point; for him (Dr. Savage), the debate had established nothing save unmitigated confusion. He would like to be permitted to ask Mr. Wells three questions, viz.—1. Supposing a patient during pregnancy (the period no matter), with an ovarian conglomerate tumour, the form usually called solid, let its magnitude be what it might (she not materially suffering), would Mr. Wells perform ovariotomy under such circumstances? 2. Suppose a case analogous in all ways, except that the ovarian tumour is a mere cyst, she not suffering, would he in that instance perform the operation? 3. Suppose a patient, the attending circumstances being the same, in intolerable suffering, would Mr. Wells tap or proceed at once with the major operation? His (Dr. Savage's) opinion was, that in the latter case surgical interference other than by ovariotomy would be unjustifiable. As might be anticipated, the quickness of parturition following the operation was in proportion to the advanced stage of the pregnancy. This was shown in a measure by Mr. Wells' tabular statement.

Dr. Roper mentioned a case in which a patient of his, who was suffering from ovarian tumour, became pregnant. The tumour was as large as the fœtal head at birth, and was above the pelvic

brim. She had had children previously. The tumour did not cause any suffering; but in anticipation of difficulty connected with delivery, Dr. Barnes was consulted, and we determined to induce labour at the end of the seventh month. This was done and a living child was born. After this she had living children born at full term, the tumour remaining unaltered.

Mr. Scott said, it appears to me, sir, that the propriety of performing ovariotomy during pregnancy would mainly depend on two conditions—1st, the amount of suffering and constitutional disturbance of the patient; and 2ndly, on the size and position of the tumour. Should the tumour be closely wedged in the pelvis, I think great danger would be incurred during delivery, and early ovariotomy should be performed; if, on the other hand, the tumour lies well up in the abdomen, and there is little or no suffering, it may be doubtful whether operative interference is justifiable. In a case which I brought before the Society some years since, in which I had performed the double operation, on one side removing a large multilocular cyst and on the other a fibroid tumour, there was an undoubted history of two deliveries at term of living children after the development of the ovarian tumour. In that case the pedicle was long and completely twisted, so that there must have been free mobility of the tumour.

Mr. Spencer Wells, in reply to Dr. Playfair, said that the very important case alluded to by him very well illustrated the difficulties met with at the bedside when compared with the rules which might be laid down in books or gathered from a discussion in a society. The patient and her friends have an undoubted right to their share in the discussion, and it is often not only advisable but right to give them some share of responsibility when the decision involves a matter of life or death. This lady was the mother of several children; she was in the early stage of pregnancy, and she had a small tumour, which some supposed to be uterine, others ovarian. As pregnancy went on, the tumour did not much increase, but suffering became excessive; and when relief became imperatively necessary, and the question of removing the tumour or inducing premature labour was discussed, the patient and her husband both strongly objected to the operation, and premature labour was accordingly brought on. There was no difficulty in the delivery, but uterine phlebitis came on a few days afterwards, and the patient died of pyæmic fever. No examination of the body was permitted, and the nature of the tumour is still in doubt; but it is certain that tapping could have been of no use, as the tumour was small and the fluctuation not distinct. With regard to the question of Dr. Murray, it should be stated that in the column of the table where the weight of the tumour is given the weight includes not only the solid portion of the tumour, but its liquid contents. The rules suggested by

Dr. Murray, of first removing the fœtus and then soon afterwards operating on the tumour, appeared to be an extremely dangerous doctrine; for as Dr. Heywood Smith had just remarked, ovariotomy soon after labour, indeed any operation in the puerperal state, was performed under conditions far less favorable to the woman than operating during pregnancy. He agreed with Dr. Routh in the opinion that pregnant women, as a rule, recovered after operations very well. The careful summary of his present views, with which the President had favoured the Society as the result of reflection upon the facts contained in the paper, was likely to be very useful in assisting the profession to form a clear opinion upon the best mode of practice in cases of pregnancy complicated with ovarian tumours. Mr. Lawson Tait's cases of small tumours in the pelvis obstructing labour hardly bore upon the question of ovariotomy during the early stages of pregnancy. His proposal to "tide the patient over" the pregnancy by one or more tappings was open to the objection, so well supported by Dr. Chambers, that the cyst might inflame; and if the patient did not die, still she was placed in an unfavorable condition for ovariotomy. Dr. Carter's two cases certainly proved that pregnancy and ovarian tumour might go on together without interference and a living child be born after a natural labour. In his work on 'Diseases of the Ovaries' he (Mr. Wells) had quoted cases of this kind, in one of which a woman went through five pregnancies, and bore five living children without unusual difficulty. But such cases were certainly exceptional. In a large majority of cases some great suffering or threatening danger obliged the surgeon either to induce premature labour or to tap the cyst or remove it. A larger number of cases must be observed before Dr. Galabin's question as to the performance of ovariotomy, early or late, in pregnancy could be answered. But it would appear that there was a greater probability of pregnancy going on to the full period when the operation was done in the early months, although in one case operated on at the seventh month the child was not born till twenty-five days after. Dr. Heywood Smith's question as to the rapidity of growth of the tumour affecting the decision in any doubtful case opened a very important subject, but there could be no doubt that a rapidly growing tumour had better be removed as soon as possible in the absence of some distinct contra-indication. In such cases as those quoted by Dr. Roper and Mr. Scott the patient was left with her tumour. The child might possibly be born alive, but the tumour remained, caused constant anxiety, and possibly fresh complications. In reply to the question of Dr. Savage as to the course to be recommended when a pregnant woman had an ovarian tumour which could not be reduced by tapping, the clear course was to leave her alone, if she was not suffering. So far

from this discussion leading to the "confusion and embarrassment" feared by Dr. Savage, he (Mr. Wells) hoped that it would assist in enabling the profession to arrive at some clear and distinct conclusion as to the line of treatment to be followed in cases which could never be free from doubt and difficulty.

OCTOBER 3RD, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the chair.

Present, 33 Fellows and 4 visitors.

BOOKS were presented by Mr. George Bland, Dr. Robert Battey, Dr. L. D. Bulkley, Dr. S. C. Busey, Dr. H. F. Campbell, Prof. A. Corradi, Dr. E. S. Dunster, Mr. E. W. Jenks, Dr. F. Macari, Prof. F. Rizzoli, and Dr. Frank Wells; St. Thomas's Hospital; St. Mary's Hospital, Manchester; the Obstetrical Society of Leipzig; the American Medical Association; and the American Gynæcological Society.

The following gentlemen, having returned their obligation papers duly signed, were declared admitted Fellows of the Society:—Edward Burd, M.D. (Shrewsbury); Fred. H. V. Grosholz, L.K.Q.C.P. Ireland (Manchester); Horace Sydney Howell, M.D., and Samuel Butler Mason, L.K.C.P. Ed. (Pontypool).

Norman C. Maclean, M.D., and William Stephenson, M.D. (Aberdeen), were elected Fellows of the Society.

George Aylmer Barfus, M.D. (Montreal), John Bedford Kerswill, M.R.C.P. (St. Germans), and Edward White, M.D. (Birmingham), were proposed for election.

Dr. GALABIN showed a Zwancke's pessary, which had produced extensive recto-vaginal and vesico-vaginal fistulæ, together with a number of phosphatic calculi removed from

the bladder. The patient was fifty-eight years old, and the pessary had been introduced six years before. She had not been instructed to remove it herself, and had neglected the direction to come after a time to be examined. Though hæmorrhage and fœtid discharge had lasted a year, she applied only a fortnight before to a doctor, who made two fruitless attempts to remove the pessary. She was then sent to the union infirmary, where equally fruitless attempts were made on three occasions, and finally she came to Guy's Hospital. The pessary was found to be very deep in the vagina, and embedded in phosphatic calculi, the base of the bladder being destroyed, and bladder, vagina, and rectum, thrown into one common cloaca. The foreign body was recognised with difficulty, as being that very objectionable form of Zwancke's pessary in which the arms are fixed by an india-rubber tube. The arms were so twisted through that they gave way, and it proved impossible to remove the instrument by their aid. It was finally extracted by pressing together one wing out of the rectum and the other out of the bladder. Dr. Galabin thought that it could not be too widely recognised, that it is very dangerous to recommend a Zwancke's pessary without making sure that the patient understands how to remove it herself, and will do so every night.

Dr. Barnes thought that we were not justified in trusting to women in this matter, therefore we should select the best form; Zwancke's is most objectionable.

Dr. Routh said he thought the wholesale condemnation of the Zwancke pessary, and especially that form originally modified by Dr. Savage, of the Samaritan Hospital, was scarcely reasonable. Its cheapness was a great element for good in hospitals, the other forms being too expensive for the use of hospital patients. Moreover, any kind of instrument kept for eight years without removal must do harm. It should be removed every night and cleaned, and reapplied every morning; and if this was done, provided the proper size had been originally selected, it could not possibly do any harm. He would ask Dr. Barnes, who had expatiated so strongly on the advantages of Hodge's pessaries, had he never seen fistulas of both the passages produced by Hodge's, of very troublesome ulcerations behind the uterus, when

these were retained for a long time. He (Dr. Routh) had unfortunately seen very many.

Dr. Barnes, in reply to Dr. Routh, said that any pessary may cause ulceration. In old age the change in the vagina is such that the organ contracts, and this may favour ulceration. He thought a cup the best form in these cases.

Dr. Braxton Hicks thought the form made of wire the most objectionable.

The President said that Zwancke's pessary was introduced before Hodge's was known. He had used it and introduced it into England. It was very imperfect; he had not used it lately.

Dr. Wiltshire said his experience of Zwancke's pessary agreed with that of Drs. Galabin, Barnes, and Braxton Hicks. He had had a precisely similar case under his care at St. Mary's Hospital. There were objections to all pessaries, but they were extremely strong against Zwancke's instrument.

Dr. Godson said, that if what had been spoken of Zwancke's pessary were true, he feared he was accountable for an immense amount of injury. During the last eight years he had inserted hundreds of these to relieve procidentia among the patients at St. Bartholomew's Hospital. He found that Hodge's pessary did not apply in a great number of cases, and that a Zwancke's overcame the difficulty. He had never seen any evil result from wearing those that he had introduced, and he could bring forward any number of women who, after having worn them for years, could testify to the comfort derived therefrom. If the instrument was not removed every night it was undoubtedly liable to damage the soft parts; he always gave the patient printed instructions how to manage it, and he had every reason to believe that these were carried out.

Dr. Godson then showed a pessary of wood, in the shape of a ring, which he had extracted from an unmarried woman, who had worn it for twenty-six years, and was unaware of its presence. Although encrusted with deposit it had caused no damage. There was considerable difficulty in removing it, and it had to be divided with bone nippers, after ether had been administered to the patient.

Dr. Edis thought there was one practical lesson to be learnt from the remarks that had been made about the introduction of pessaries, and that was, that the patient should always be informed by the practitioner that a support had been placed in the passage, and that she should present herself at no distant interval in order that it might be determined whether it was

necessary to leave it in, and that instructions should be given as to the probable length of time it would be necessary to wear it. Instruments were too often inserted without the patient being made aware of what had been done. Only recently he (Dr. Edis) had removed a Hodge's pessary that must have been in at least eleven years, as the patient assured him that she had not been examined by any medical man for at least that period, and she was unconscious of the presence of any instrument whatever.

A SYNOPSIS OF ONE THOUSAND FIVE HUNDRED CONSECUTIVE LABOURS

By W. T. Greene, M.A., M.D., T.C.D.

The analysis of a number of consecutive labour cases occurring in private practice, having on several occasions been favorably received by this Society, I have carefully examined my register, and beg to submit the result, as follows: premising that I have included therein every case of parturition, whether at full term or premature, with which I have been concerned, both singly and in consultation, during a period of rather more than eight years—from January, 1869, to April of the present year, 1877.

The total number of cases attended during that time was, as I have stated, 1500; of which exactly 300 were primiparæ and 1200 multiparæ. Fourteen women gave birth to twins, thus raising the number of children to be accounted for to 1511.

The presentations were as follows:

Vertex	1433	Arm	4
Breech	27	Brow	2
Footling	17	Knee	1
Placenta prævia	6	Hydatid mole	3
Face	6	Unascertained	10
Shoulder	5		

There were—

Males	726
Females	785
Nil	3
Total	1514

Note.—The proportion of the sexes to each other given above, though unusual, has been maintained throughout the whole of the time under consideration; the numbers in each register of 500 cases being as follows:

1869—72, Register A	239 males	266 females.	
1872—74, „ B	244 „	258 „	
1874—76. „ C	243 „	261 „	
	726 „	785 „	Total, 1511.

making, with three mole pregnancies, a total of 1514 births.

As only six of the women attended were unmarried, and half of their children were males, the undue preponderance of female births cannot, as suggested, be accounted for on the hypothesis that the majority of illegitimate children are of the female sex.

The 1433 vertex presentations call for no remark at present, but will be referred to again further on under the heading of "modes of delivery."

Twenty-seven breech presentations were delivered by the natural efforts, aided in a few instances by manual traction, and may be thus arranged as regards the mothers:

Primiparæ	6	27;
Multiparæ	21	

and as follows as regards the children:

Living males	9	27.
„ females	14	
Dead males	3	
„ female	1	

Two of the stillborn males were premature; the female,

having been born before my arrival, all but the head, was suffocated in the birth; the mother was a primipara.

Seventeen footling presentations occurred as under:

Primiparæ	5	17.
Multiparæ	12	

Seven children were stillborn, four males and three females: two of the former and one of the latter were premature.

Five shoulder and four arm presentations occurred in multiparæ: seven children, of which one was premature, were dead when delivered by turning, four of these were putrid; two, both males, survived.

Six cases of placenta prævia occurred in multiparæ; three of the mothers subsequently died: two children, both males, were born alive.

Six cases of face presentation resulted in one dead, and five living children, without instrumental aid. The dead child was an acephalous monster, but otherwise well developed. An account of it was published in the 'British Medical Journal' for 30th July, 1870.

"On the 1st of July, 1870, was called to attend Mrs. M—, in labour with her fifth child. On arrival, found the membranes ruptured, and the face presenting. Everything went on satisfactorily; and the child, a large fat one, was born after a few pains, entirely destitute of brain and skull, with the exception of the basilar and two condyloid portions of the occipital bone. The eyes were large, round, and prominent, but without optic nerves; the spinal cord terminated in a rounded extremity about the size of a hazel nut, just within the foramen magnum; all the other organs of the body were perfect and fully developed, with the exception of the testicles, which were altogether wanting. The child was not weighed, but I should think it would have turned the scale at ten pounds. It was stillborn."

"It is remarkable that this was the third time the woman had given birth to similar monsters—her first, third, and fifth. The second and fourth, now living, are perfect and healthy children, girl and boy. She attributes the deformity

of her first-born to having been frightened by a bull, and clasping her hands together at the back of her head; that of the others to falls, in which the occiput came severely into contact with the ground—a series, to say the least, of curious coincidences."

One brow presentation was delivered instrumentally, and one naturally; both children living, and males.

One case of knee presentation occurred in a multipara, prematurely delivered of twins; this child was a male and survived his birth eighteen hours.

Ten presentations were unascertained owing to premature expulsion of the fœtus before the arrival of the writer.

Three cases, Nos. 702, 803, and 858, respectively, were hydatid moles, the last was expelled spontaneously, *en masse,* the other two were removed partly by outward pressure and partly by the introduction of the hand into the vagina and two fingers into the uterus; the hæmorrhage in all was considerable, but the patients did well, and two of them have subsequently borne children; they were all three multiparæ.

Fourteen women were delivered of twins, as follows:

Both males	4	
„ females	6	14.
Male and female . . .	4	

of the above twenty-eight children, four males and two females were stillborn, five of these, four males and one female, were premature, the remaining female was a shoulder presentation, and was delivered by turning at full term.

In every case where the twins were of the same sex I have observed that there were two placentæ and that the membranes were distinct, while in cases where the children were of different sexes, there was only one placenta and the membranes were united. I should be glad to know whether the experience of other accoucheurs present coincides with mine in this respect.

Delivery was effected in the 1514 cases (including twins) as follows:

By natural efforts	1447
„ forceps	51
„ turning	12
„ craniotomy	2
Partly by pressure and partly by introduction of hand into uterus	2
Total	1514

The fifty-one forceps cases may be thus classified:

Primiparæ . . .	31		51.
Multiparæ . . .	20		
Males born of primiparæ .	14	27	51.
„ „ multiparæ .	13		
Females „ primiparæ .	17	24	
„ „ multiparæ .	7		

Of the above fifty-one children brought into the world by the forceps (Churchill's or Barnes'), one male and three female were stillborn; two of the latter were the issue of primiparæ, as was also the one male.

The remaining case was one of extreme obliquity of the fœtal head in a multipara; I was called in by a brother practitioner who, in trying to deliver with the short forceps, failed, but managed to fracture the basilar process of the occipital bone of the child; the mother was much exhausted, but recovered.

Turning was had recourse to in twelve cases, nine times for arm or shoulder presentations, and three times in placenta prævia; four children were born alive.

One arm presentation had been attended by an unqualified chemist, who nevertheless had a large midwifery practice amongst the poor; I found the woman much exhausted, the os uteri tightly embracing the presenting arm of the child, in consequence, probably, of repeated doses of ergot; I gave chloroform and then delivered without difficulty; the child was dead; the mother made a good recovery.

Two cases were terminated by crainotomy, one a hydrocephalic fœtus, the other a case of placenta prævia, where

the patient had had very considerable hæmorrhage before I was sent for. I found her blanched, almost collapsed, and the os uteri fully dilated, so perforated as the speediest means of effecting delivery, with the least amount of shock to the mother, the child having been already dead for some time.

Two cases of hydatid mole were delivered as already stated.

Of the vertex presentations a considerable number presented such obliquity of the fœtal head that the ear could be readily felt just inside the os uteri; in most cases I was enabled to correct the mal-presentation, but in five or six instances the labour had to be terminated by the forceps.

Under the head of complications I may include the following cases:

Post-partum hæmorrhage	21	40.
Retained placenta	16	
Prolapse of funis	2	
Puerperal convulsions	1	

Although sometimes very considerable, the cases of post-partum hæmorrhage yielded readily to pressure, application of cold to vulva, introduction of ice into vagina, or in three instances to injection of diluted solution of perchloride of iron; one case only had a fatal termination, and will be noted further on.

Sixteen cases of retained placenta present no features calling for further remark; all did well.

Two cases of prolapse of funis terminated favourably: the first occurred with a breech presentation. I brought down the feet and delivered at once; the child was in a state of suspended animation, but soon revived. The second was a case of vertex presentation; as the pelvis was roomy, the pains strong, and the child a small one, I did not interfere; it was also born alive.

One case of convulsions terminated favorably for the mother; the child was deadborn.

The total number of deaths, maternal and infantile, were as follows:

Mothers	12
Infants	73
Total	85

To take the latter first: thirty were born before reaching a viable age; among these are included three footlings, two shoulder, and two breech presentations; the forty-three remaining cases of infantile mortality are referrible to various causes, such as protracted labour, and mal-presentations. One born with a "caul" before my arrival was suffocated by the fœtal membranes, one was an acephalous monster, two were destroyed by craniotomy (though one of these was certainly already dead when the perforator was used), five were the offspring of syphilitic parents, and the deaths in utero of three were attributable to falls sustained by the mothers some days, and in one instance weeks, before delivery.

The maternal deaths I have classified as follows, prefixing the numbers attached to them in the register.

No. 48. Æt. 35, second pregnancy; profuse hæmorrhage set in two hours after delivery, stopped by application of cold to vulva and pressure on uterus through abdominal walls; death took place from exhaustion twenty-nine hours after confinement.

No. 101. Placenta prævia; patient sank three hours after delivery.

No. 114. Placenta prævia; died on fifth day after confinement, with symptoms of blood-poisoning, a very poor woman, badly nourished; dwelling overcrowded and dirty; nursing bad.

No. 170. Æt. 30, fifth pregnancy; scarlatina set in two days after delivery, was followed by acute rheumatism with pericarditis, from the effects of which she died on the nineteenth day after her confinement.

No. 323. Æt. 35, second pregnancy; a very delicate woman; had given birth to one child eight years previously, and never been in good health afterwards. Sank gradually, and died twenty-four hours after delivery; no hæmorrhage.

No. 577. Considerable post-partum hæmorrhage; had sustained a severe fall about a week before her confinement, which occurred nearly a month before she expected it. Peritonitis supervened on third day, and was followed by bronchitis and congestion of the lungs; death took place on the eighth day. A very poor, hardworking, and probably underfed woman.

No. 799. Æt. 35, primipara; long tedious labour, two hours in second stage; no laceration of perineum took place, nor was there any hæmorrhage to any extent. Had a rigor on the third day, followed by peritonitis and pulmonary congestion; death occurred on the seventh day after delivery.

No. 810. Labour short and easy, delivery natural. On third day had a rigor, which was followed by severe pains along the spinal column, erysipelatous tumefaction of the vulva and thighs ensued, and death took place on the tenth day amid indescribable suffering. Erysipelas also attacked the infant, which succumbed to the disease a few days after the death of the mother. Subsequent inquiries elicited the important fact that the nurse had left a case of phlegmonous erysipelas to attend upon this unfortunate lady, who was a remarkably healthy person, and had always had easy labours and good recoveries.

No. 995. Primipara, æt. 25; labour very protracted in first stage, one hour in second. Died fifteen days afterwards with symptoms of typhoid blood-poisoning.

No. 1015. Tenth pregnancy; the last two deliveries had been instrumental; deferred sending for me in hopes the child might be born without assistance; had been many hours in the second stage when I arrived; used the short forceps and brought away the child without difficulty; it was a large male and lived. Next day rigors, followed by symptoms of peritoneal mischief, set in; these were followed by pulmonary complications under which the patient succumbed on the tenth day; she had suffered from chronic bronchitis for some years, and was also addicted to alcohol. I may mention here that, of the cases in which the forceps was used, this is the only one of the twelve which proved fatal.

No. 1219. Æt. 25, second pregnancy; this person had been ill for some time previous to her confinement, suffering from obscure symptoms of blood-poisoning; she had several whitlows, and complained much of neuralgic pains. Peritonitis occurred on the day following her confinement, convulsions of a cataleptic nature ensued, and congestion of the lungs; she died on the ninth day. The drainage and ventilation of the house were as bad as they could be.

No. 1243. Placenta prævia; excessive hæmorrhage had taken place before I was sent for; I immediately turned, but she died from exhaustion four hours afterwards.

In addition to the above cases which terminated fatally from the causes detailed, I had at different times several other patients who suffered to a greater or less extent from one or other of the forms of disease incidental to parturient women, which have been classed together under the general name of puerperal fever, and four cases of smallpox. I append a detailed list.

Puerperal febrile disturbances from which patients recovered.

No. in Register.	
111.	Mrs. H—. Smallpox, good recovery, child died.
167.	Mrs. S—. Scarlatina appeared on fifth day; she was very bad but recovered.
169.	Mrs. G—. Slight attack of scarlet fever.
171.	Mrs. A—. Slight attack of scarlatina, had given birth to six months' male fœtus.
172.	Mrs. W—. Very severe attack of scarlatina, was a long time ill, but eventually recovered.
249.	Mrs. H—. Scarlatina, caught from her children.
255.	Mrs. R—. Smallpox, child died.
256.	Mrs. H—. Smallpox, child lived.
393.	Mrs. B—. Feverish, acute bronchitis.

No. in Register.

582. Mrs. L—. Feverish attack of typhoid character, lasting two or three weeks.

802. Mrs. W—. Scarlatina on third day, very bad, children had it afterwards.

1114. Mrs. S—. Typhold fever.

931. Mrs. M—. Typhoid fever.

1153. Mrs. E—. Febrile attack lasted several weeks.

1223. Mrs. W—. do do

1350. Mrs. H—. An intemperate person ; severe febrile attack lasting several days.

1276. Mrs. B—. Had a severe fright about a week after confinement, suppressed lochia and much fever, ill for a month.

1430. Mrs. B—. Smallpox, child died.

I may also mention that the greater number of the children thus brought into the world under my care have remained under observation, and I have never seen that they have suffered in the least either from compression of their heads by the forceps, suspended animation at birth, or shock or accident to the mothers during pregnancy, much less that idiocy has been superinduced by any of these complications, although in some instances I have used unremitting exertions for an hour or more before animation was restored, and in others the compressing force necessary for the extraction of the child has been so great as to leave indentations in the skull (not abrasions) that have remained visible for weeks afterwards. The sickness of pregnancy, too, has been mentioned as at least predisposing to idiocy ; I can only say that I have seen some extreme cases in which the children are much as other children, and certainly very far from being fools. As far, therefore, as my experience goes, the obstetrical aspect of idiocy is nil.

I never use ergot now, some years ago I did so, and almost invariably found that its only effect was to cause retention of the placenta, frequently by inducing hour-glass contraction of the uterus. Where the pains are weak and do not follow

each other rapidly, I find a little cold gin and water an excellent uterine stimulant; and a change in the position of the woman on the bed has usually a very good effect in hastening delivery.

I omitted to mention in its proper place that, having tested the efficacy of the Liquor Ferri Perchloridi in arresting post-partum hæmorrhage, I concluded to use it in the first case of placenta prævia I afterwards met with. On the 20th Feb., 1876, I had an opportunity of doing so, and pending the dilatation of the os mopped the presenting part with a solution of the perchloride in water, in the proportion of one part to four. The result fully answered my expectations, bleeding ceased at once, and as the pains were strong I resolved to wait and see; in about half an hour the child was born, it was dead, but the mother made an excellent recovery.

On a subsequent occasion I used it again, pending the arrival of a physician who had been sent for at the desire of the patient's friends; in this case also with the result of arresting the hæmorrhage. The physician thought it had the effect of causing rigidity of the os and cervix, so that he had some difficulty in introducing his hand into the uterus for the purpose of turning. But, independently of its great value in checking hæmorrhage, I believe the Liquor Ferri Perchlor. to possess considerable antiseptic properties, which in cases where the placental surface of the uterus is so near the atmospheric air as in placenta prævia, are especially valuable. Both these patients made uninterrupted recoveries.

Such is a brief and very imperfect account of my experience as an accoucheur in a London suburb chiefly amongst the lower-middle and labouring classes of its inhabitants, and in conclusion I must express my sincere thanks for the cordial and invaluable assistance I have on different occasions received from three distinguished fellows of this Society, who, I hope, will pardon me if I venture to name them here:—Dr. H. Gervis, Dr. Graily Hewitt, and Dr. Braxton Hicks.

Dr. Braxton Hicks observed, that Dr. Greene had passed over without any remarks the puerperal cases which recovered; it is

from these that we learn more than from those who die. For this reason he would like to have had their histories.

Dr. GREENE replied, that the reason he did not relate the histories of these cases was that he had brought a number of them forward in the discussion on puerperal fever. Some of them were cases of scarlet fever, some typhoid fever—seven or eight of the former, and about twelve of the latter. The remainder were only slight ailments,

Dr. EDIS thought the number of maternal deaths was somewhat large, viz. 12 out of 1500 cases. In the last return of the Birmingham Lying-in Charity, where the patients were attended by midwives at their own homes, there were only three maternal deaths in 1500 cases. In the 1250 cases reported recently to this Society by Dr. Cooper Rose there were only two maternal deaths. In the 3223 cases reported by Dr. and Mr. Godson only seven deaths. Dr. Greene tells us that the forceps was employed in fifty-one cases, about 1 in 30, and of these only one mother died. The details given as to the length of the labours in the fatal cases are scarcely sufficient to enable us to form a precise opinion as to the influence of prolonged parturition in causing a fatal issue. The mortality is certainly in excess of the usual average, and though other causes may have contributed much towards this, it would have been interesting to have determined more accurately the above question. The number of stillborn children in Dr. Greene's practice, excluding the thirty infants born before reaching a viable age was forty-three, that of the Birmingham Charity thirty-four, of Dr. Cooper Rose's forty-one, including several syphilitic children born prematurely, whilst in Mr. Godson's 3223 cases there were 117 stillborn children, or 5·23 per cent. These records of private practice would doubtless prove of much value as standards of comparison for future practitioners, as well as incentives to those at the present time, in attempting to diminish the maternal and fœtal mortality.

Dr. BARNES said the average of deaths in the Maternity Charity was 3 per cent., and it was difficult to refer the mortality to want of use of the forceps. A series of cases like the present paper could not excite great discussion; we required more details. If perchloride of iron could contract the cervix, it would do the same to the fundus. He (Dr. Barnes) would like to have heard some details of the cases. The statistics of the Royal Maternity Charity were used in favour of the employment of medicines in obstetric practice; but this is not fair, for no conclusions can be drawn from them.

Dr. DALY said that there were two statements in Dr. Greene's paper which very much surprised him. The first was, that he had entirely given up the use of ergot; he would be glad to hear the opinion of others on this point, but his own practice was

exactly opposite to that of Dr. Greene's, for, excluding primiparæ, he was in the habit of giving a teaspoonful of Extract. Ergot. Liquid. in nearly every case when the head was on the perinæum. This practice prevented post-partum hæmorrhage, and by getting a well-contracted uterus, greatly lessened the risk of septicæmia, and also favoured complete involution. The second point was, that Dr. Greene had only used pressure on the uterus, through the abdominal parietes, to expedite delivery, in two cases in the entire series of 1500 deliveries. This was also opposed to his practice, for though using forceps very freely, yet he found, especially in multiparæ, that instrumental interference was frequently rendered unnecessary by the application of well-directed pressure on the uterus through the abdominal parietes.

Dr. Heywood Smith asked, in reference to some observations which fell from Dr. Edis, whether there was any evidence that pelvic cellulitis followed hard labours, when there was a disproportion of the fœtal head and the maternal passage, rather than that it was the product of some septic mischief.

Dr. Chalmers said it might be safe and advisable for experts to use the forceps frequently; but that, to lay down any rule inducing general practitioners to use them, say once in every five or six cases, would be likely to lead to more injury to the maternal parts than would be brought about by delay in labour. With regard to the use of ergot, he had used none for the last two or three years, except in a few experimental cases, and he was unable to observe any consequent delay in labour or tendency to hæmorrhage. In about 500 cases so treated there had been no approach to post-partum hæmorrhage.

The President said there was a curious fact for which he was not prepared. The proportion of male to female children generally is 105 to 100; in Dr. Greene's practice there were 726 males to 785 females. Amongst illegitimate children the proportion was reversed. The description of cases of recovery should be improved. He had an impression, but without figures, that there is some sort of connection between idiocy and difficult and protracted labour.

Dr. Barnes was surprised at Dr. Greene's experience with regard to the sexes of twins. It was in direct opposition to that of Braun and Chiaci. Dr. Barnes' observations confirmed those of Braun.

Dr. Galabin said, with reference to the sex of twins, that he had collected the cases of which particulars had been recorded during twelve years of the Guy's Hospital Lying-in Charity. Among these all possible combinations were found of single or double amnial cavity, and single or double placenta associated both with children of the same, and children of the opposite sex. From the fact that double monsters are always of the same sex,

it would be expected that twins, having a common amnial sac, would be of the same sex, but he had not found this relation markedly more common than the opposite. It therefore appeared clear, that at any rate both conditions were possible.

THE FORCEPS IN CERTAIN BREECH-PRESENTATIONS.

By T. W. Agnew, M.D.

(Communicated by Dr. Williams.)

The 'Lancet' of the 27th November of last year gives a report of a meeting of the Obstetrical Society of London, when a paper was read on a new form of blunt-hook and sling for assisting delivery in cases of breech-presentation. In the ensuing disscussion some suggestions for practice, in cases where impaction or arrest was present, were offered, but one method of treatment which I think deserved some mention was not even referred to, that is, the use of the forceps. I am aware by some writers the use of this instrument is not referred to at all, by many it is decidedly condemned, and by few it is sanctioned, and even then only with a certain degree of hesitation. Barnes, in his admirable work, 'Obstetrical Operations,' states he has "always succeeded in delivering these cases by the simple use of the unarmed hand," but as such enviable felicity of manipulation is but a rare gift, as too he has never tested the comparative merits of the forceps *versus* the hand treatment, and as he confesses that "this difficulty (delivery of impacted breech) is little considered in our text books," perhaps any record, however limited, of treatment which has been found successful, may not be altogether devoid of interest, at least to the general practitioner, under circumstances when perhaps no assistance

from the consulting and experienced obstetric physician may be procurable.

As to the danger which is said to be incidental to the use of the forceps, it must be borne in mind we have only a choice of evils. The vast majority of breech cases do well, at least as far as the extrusion of the breech is concerned, with little or no interference, but when real arrest or impaction at full term takes place, no treatment, perhaps, can be carried out with perfect immunity from danger to mother or child. The hook, for instance, is still mentioned, but it must be admitted to be a barbarous instrument, I had almost said weapon. Again, in case of a fully packed and distended vagina, the attempt to pass anything round the child's groin, or to insert the hand to seize a foot if lying low, or to thrust both hand and arm in to seize a foot if lying in contact with the face, can scarcely be made without the greatest risk of injury to the maternal tissues—injury which, under these circumstances, may well eventuate in the induction of some of those conditions commonly classed under the general name of puerperal fever. The question now remains, is the use of the forceps as formidable or dangerous as any of these methods? I think not, if the proper instrument be made use of in a proper manner. That which I have used safely and effectually is Barnes' long or double-curved forceps. Some French (and perhaps other) instruments I know are so faultily constructed that they must exert an enormous crushing power when taking sufficient hold for effective traction, and Capuron, as quoted by Blundell, no doubt accurately characterises this action of his own forceps when he, somewhat naïvely, states it is "meurtre pour l'infant!" But this dictum, although it may have helped, being quoted by Blundell, to bring the forceps treatment into disrepute, does not necessarily apply to the modern English instrument, and has therefore little weight. Barnes again quotes a German authority (Hohl) to the effect that the forceps is neither "necessary" nor "effectual," and "to apply the blades safely the hand must be passed into the vagina, and having done this it may as well do the right thing at once—that is, bring

down a foot." With the greatest deference I must demur to this teaching, as I know in some cases certainly the forceps is "effectual," and I cannot admit for its safe introduction there is any necessity to pass the hand into the vagina as a guide. I should therefore regard the adverse opinion of this writer also as of little weight. Having, I think, necessarily premised so much, I proceed to give a very brief account of the two following cases.

About eighteen months ago I was called by a professional friend to a case of breech-presentation, at which he informed me, by note, he had been in attendance for many hours and no progress was being made. From his well-known skill and long experience I felt certain all the usual means for affording assistance had been exhausted, and I therefore considered what other measures could be tried. The forceps I thought might be effective, and armed accordingly I proceeded to the case. The patient, a stout woman, aged about 40, and mother of several children, was in a most restless and anxious condition, and great prostration was present, the labour having lingered over a period of about twelve or fourteen hours. The breech had advanced to the vulva, but had remained impacted there for several hours, and it was clear no further assistance could be expected from the exhausted uterus. The condition of the vagina, after a trial, forbade, in our opinion, any further attempts at manipulation, and we therefore agreed to try the forceps. With little more trouble than in head cases, I cautiously introduced the blades and locked them. In doing so I did not attempt to introduce the hand (although said to be necessary for safety—Hohl), but found, as I expected, the usual partial introduction of the index and middle finger was quite sufficient. My friend applying pressure to the fundus uteri, I now not only employed steady traction but leverage action* also, by continually and quietly swaying the handles

* I am aware the reality of the leverage action above referred to is a moot point, and high authorities may be quoted on both sides. To me it appears clear that each blade in turn is a lever of the second class, the two at the same time acting in concert, each being complementary of the other, and the grip of the object at the distal portion of the instrument being the fulcrum. The arrangement is really (though not visibly) identical with that of many double

upwards and downwards. Under the influence of these forces we soon had the extreme satisfaction of noticing a slow advance of the breech, and in a very short time, perhaps five or six minutes, it was fairly extracted. The remainder of the labour was conducted in the usual manner. The child had been dead some time before birth, but on careful examination not a trace of injury from the forceps could be detected. No injury was done to the maternal tissues, and the patient therefore made a quick and excellent recovery. I should mention the direct traction power used was not excessive. I trusted in part to the leverage action, as I was aware I held something very different from a globular body in the grasp of the forceps, and feared to exert too much tractile power, from the feeling that if I attempted it the blades would probably slip.

The second case which I bring forward, occurred in my own practice about a year ago, and affords, I think, a crucial test of the value of the forceps treatment. The patient, a primipara, had married late in life, and was between 39 and 40 years of age. After a labour of about seven hours the breech became firmly fixed just within the vulva. Ergot and digital manipulations failed to effect any change. From the rigidity

levers of this class. In these the fulcrum at the distal extremity we know is frequently fixed by a tie of some kind, such as a hook, a hinge, &c. In the forceps this tie is virtually produced by the power which compresses the handles, and which is transmitted to the grip through the double fulcrum at the lock. Though produced by an unseen agent this grip is quite as effective as a visible and material tie. Now when one lever acts the effect is to dislodge on that side in some degree the impacted but soft, and, therefore, somewhat yielding tissues of the child, and this implies a slightly forward, as well as lateral, movement of the parts. Perhaps the greater portion of the forward motion is lost when the other lever acts in its turn; still, by the repeated and alternate action of the levers the impaction and fixity of the parts are broken up so as to enable the direct traction, which all this time has been continously applied, to act with comparative ease and efficacy.

[Why should not the upper blade of the forceps, as occasionally recommended, be invariably provided with a joint? This would never be in the way, and would permit the instrument to be introduced without the necessity of disturbing the patient so much in fixing her in an irksome position at the edge of the bed.]

of the tissues and the absence of any room in the tightly packed vagina (the child being very large), I felt it impossible to introduce the hand without using unwarrantable violence. The pains gradually became more and more distant and ineffectual, and the patient lay at last in that helpless, passive, and somnolent condition so well known to accoucheurs, only roused occasionally into semi-conciousness by a feeble pain at long intervals. Taking into consideration the advanced age and utterly exhausted condition of this primiparous patient, no breech case well could have looked more unpromising, and had it not been for the former case, I should have been seriously at a loss as to what course to pursue with safety. Acting on my previous experience, however, I again applied the forceps, and making steady use, as before, of the swaying and direct traction power, I had before long the inexpressible satisfaction of seeing the breech slowly advancing, and finally of gradually extracting it. The further progress of the labour was, as I expected, most tedious, on account of the great age of the patient as a primipara, the cessation of uterine action, together with the fact that the head was in the fronto-anterior position. Under these circumstances the cord, notwithstanding all my efforts to the contrary, was so firmly compressed for many minutes that life was extinguished. Considering the surroundings of the case, however, I had for some time fully expected this, and had prepared the husband accordingly. I mention these points to show exactly how the death of the child was produced. That the forceps was absolutely free from blame was proved by a most careful examination of the body of the infant. No injury was done to the mother, who made a rapid and perfect recovery. On the whole, the success which has attended the use of the forceps in the foregoing cases, would certainly induce me again to give the same treatment a trial under similar circumstances.

Dr. BARNES said, that his experience on this point was abundant: he had tried the forceps, and had seen their inefficiency and danger. There must be compression of the soft parts above the pelvis and of the cord, which may cause asphyxia. Dr.

Agnew trusts to leverage—that was good. Breech presentations are of two kinds. If the legs are bent the case is easy, and forceps may answer, for there is no wedging or impaction—simply arrest—and a little leverage would effect delivery. The shin cases are difficult. There is a figure in Churchill which represents the exceptional breech presentation. It is like a wedge; how can the forceps get over this? There is a real obstacle, and the proper treatment is to decompose the wedge by drawing down a leg. It is a most difficult operation, for the hand must be introduced to the top of the uterus in order to seize the limb. If the child was dead, anything could be done which would relieve the mother, but there is no certain sign of the death of the fœtus.

Dr. Poole confirmed the statement of Dr. Barnes as to the extreme difficulty of delivery where the feet lay beside the head. In one case, where the breech was low down, he found it impossible to seize a foot from the tightness of the impaction. By the aid of the blunt hook the fœtus was extracted, after great delay. In such an event the child may almost be given up, and he had been led to consider the propriety of dividing the symphysis pubis, so as to break the arch of the fœtal pelvis, and thus lessen its bulk. He wished to hear an opinion on such a proceeding.

NOVEMBER 7TH, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

Present—70 Fellows and 7 visitors.

BOOKS were presented by Mr. E. B. Aveling, Dr. Barnes, Dr. S. C. Busey, Dr. F. C. Faye, Dr. Heywood Smith, Mr. Spencer Wells, and Dr. F. Winckel; and the Obstetrical Society of Philadelphia.

Mr. Foxon Foxon was admitted a Fellow of the Society.

The following gentlemen were elected Fellows:—George Aylmer Barfus, M.D. (Montreal), John Bedford Kerswill, M.R.C.P. Ed. (St. German's), and Edward White, M.D. (Birmingham).

The following gentlemen were proposed for election:—Nathan Bozeman, M.D. (New York), J. I. Donovan, M.D. (Ballincollig), H. de Fonmartin, M.D., A. C. James, M.D., Edward W. Jenks, M.D. (Detroit), T. D. Jones, M.R.C.S., J. R. M. Lewis, M.D. (Gosport), Fred. Moon, M.B. (Greenwich), James Murphy, M.D. (Sunderland), A. W. Read, L.R.C.P. Ed. (Coventry), and H. Wintle, M.B.

Dr. WILTSHIRE said that he had the honour of showing, for Prof. Tarnier, the latest modifications he had had made in his new forceps. These, as he demonstrated, consisted in lighter handles, smooth shoulders at the points of articulation of the traction stems with the blades, and a new and simple articulation for locking the handles.

Dr. Wiltshire quoted the following passages from a letter lately received by him from Professor Tarnier:

"Many accoucheurs have thought that if the blades be not sufficiently tightly compressed they would slip, while if they were too tightly compressed the child's head would be hurt. That is a double error. I have actually made a certain number of operations and the forceps have never slipped, nor has the infant's head been wounded.

"All the children were born alive, and the marks of the forceps were less deep than those of ordinary forceps, although in some cases considerable force was employed. Far from meriting these reproaches my forceps have, over the ordinary forceps, the double advantage of slipping less and injuring the head less. My cadaveric experiments are numerous and demonstrative, and show that my forceps slip only when traction is made in a direction opposed to that indicated by the handles. Slipping only occurs when there is a considerable space between the traction stems and the handles, and for that to happen the operator must be, so to speak, voluntarily *maladroit;* it is easy to follow approximatively the indicator.

"My forceps present the following points, which I consider show progress in their construction:

"1. The traction stems have a little shoulder where they articulate with the blades, and this makes them level with the blades.

"2. The movable handles are replaced by simpler wooden handles.

"3. The traction handles are movable in every sense, and when direct traction is made the head can execute, in the pelvis, the movement of rotation, and turns the blades with it. The movement of rotation is produced entirely independently of the operator.

"Advantages:

"1. Less force is required in making traction.

"2. No injurious compression on maternal parts.

"3. No tendency for head to escape from blades when traction is made in pelvic axis.

TARNIER'S NEW FORCEPS.

Description of Figures.

Fig. 1.—S P represents the minimum antero-posterior diameter of the brim. A B the axis of the brim, or the opening through which the head must pass, and, consequently, the direction which must be given to the traction. A M direction of traction by ordinary forceps.

By drawing the parallelogram of forces A D, M N it is found that the traction A M is decomposed into two forces; one, A D, which lowers the head in the direction of the axis of the brim of the pelvis, and A N, representing the injurious pressure on the pubes. The lines A M, A D, A N have their respective differences of length, which are expressed by the figures 20, 15, and 13, in round numbers. If we suppose the line A M represents a traction of 40 kilogrammes the head will be depressed in the direction A D with a force of 30, while the pubes will undergo a dangerous pressure (A N) of 26 kilogrammes.

Fig. 2.—A A the two prehensile branches. B B the two traction stems. C section of transverse handle in which they are implanted. Z articulation.

Fig. 3.—S the prehensile branches united to the traction stems (I) by an articulation, which is movable in all directions.

Fig. 4 shows the forceps applied, the line of traction being exactly according to the axis of the superior isthmus A B.

For full description, see 'Brit. Med. Journ.,' May 26, 1877, pp. 665-6.

Fig. 1.

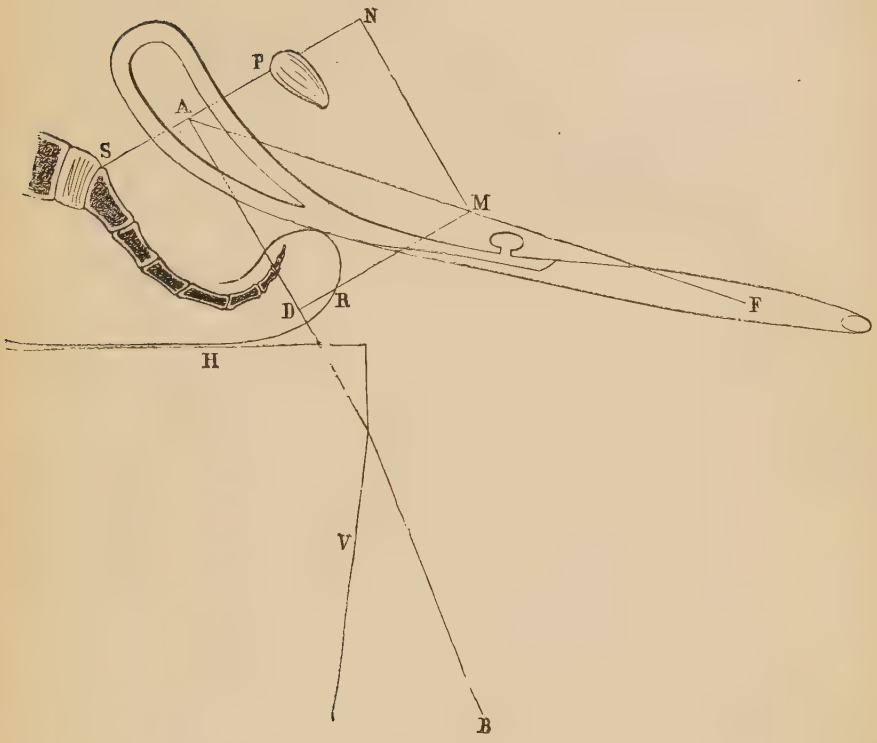


Fig. 2.

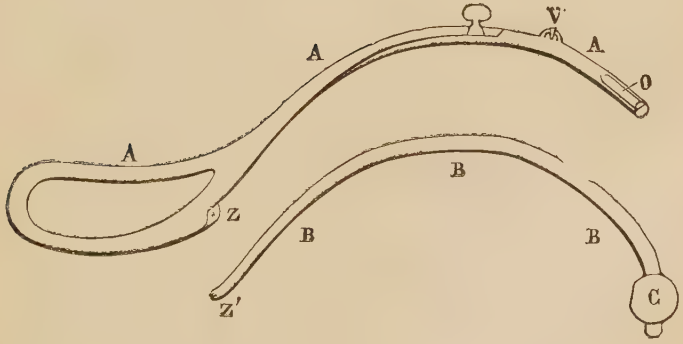


FIG. 3.

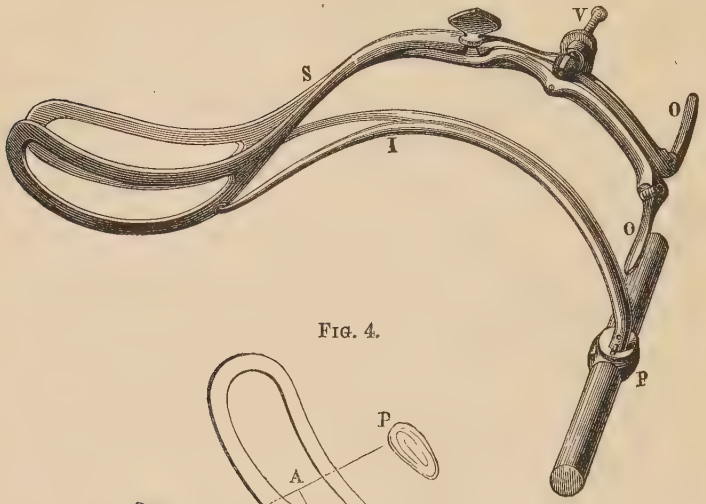
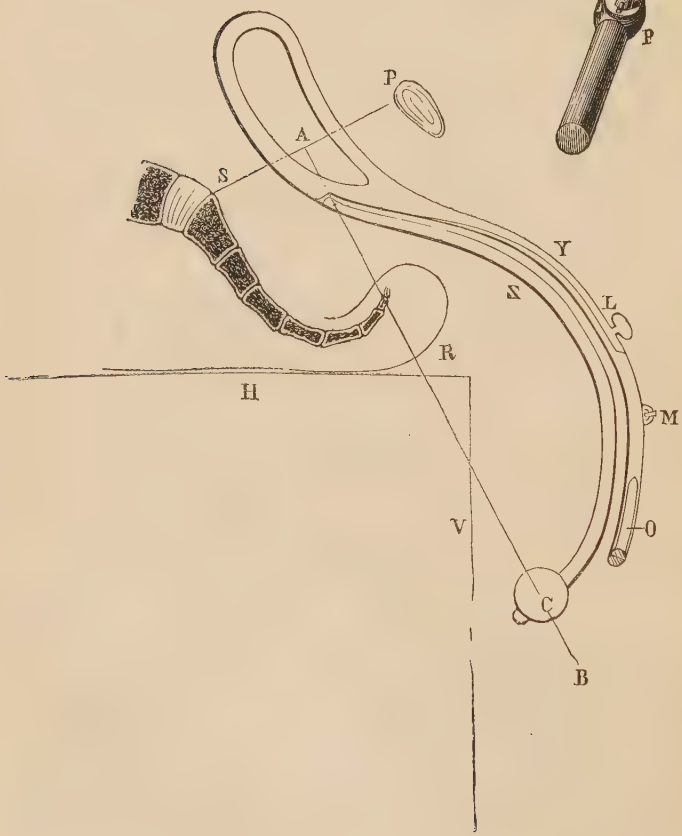


FIG. 4.



"4. Transverse handle more convenient and gives greater power.

"5. No undue compression of fœtal head from increasing force of tractions.

"6. Blades being short and having sharp curve seize head without projecting over it.

"7. The head is free to follow curve of genital canal, so that it can spontaneously and easily execute the movement of rotation.

"8. Indicating handle."

Dr. Fancourt Barnes applied the forceps to the fœtal head on a model invented by Messrs. Budin and Pinard.

Dr. Playfair asked if the instrument would permit rotation in occipito-posterior presentations. The greater the curve of the instrument the more difficult was its application in such presentations.

Dr. Braxton Hicks observed that, though it might be thought scarcely fair to make remarks on an instrument he had not yet tried, yet he could not refrain from saying that we ought constantly to bear in mind, as an important axiom in the construction of all instruments, that they should be made of the simplest elements possible. If we could not succeed with them, then we may try more complicated forms; but for an instrument required for general use, and the hands of those not specially skilled, an instrument should be as simply made as possible. One advantage claimed for Tarnier's forceps is that it permits rotation of the head without check. But this is claimed also for the ordinary kinds. It is one of the cardinal rules that, as one pulls down and the head rotates in consequence, the indication given by the forceps should be promptly accepted, and even slightly encouraged. This is perfectly easy with the ordinary forceps. Another advantage stated is that the head receives no injury. No doubt this is true, because the blades when on the head are more parallel than the usual French instruments; but it is also true with regard to our ordinary instruments, which well applied seldom mark the infant's head. Again, with regard to the traction-rods, it appeared to the speaker that they did no more than the straight long forceps, the favourite of the Dublin school; for when the perinæum was free, their traction could not be more direct and perfect upon the head at the brim. When the perinæum was rigid, both the straight forceps and Tarnier's would severely press on the posterior fourchette, which disadvantage the long-curved forceps avoided. But it has been frequently argued the long-curved form did not pull in the axis of the brim,

but that undue friction was produced against the pubes. The hand, however, placed in front, acting as fulcrum even while drawing down, does produce traction in the brim-axis sufficient for practical purposes. At any rate, as a matter of fact, the speaker urged that we do succeed with the long-curved in such a way as to render craniotomy seldom necessary.

Dr. Matthews Duncan agreed with the remarks made by Dr. Hicks, and would add very little to them. He noticed with satisfaction that, in Professor Tarnier's ingenious instrument, the use of the pendulum or oscillatory movement was not provided for, indeed almost prohibited by the construction of it. On the other hand, he did not like the fixing of the blades on the fœtal head, with sufficient force to retain the hold under traction, by a screw-nut, a plan which disadvantageously ensured a constant strong pressure which was not proportioned to the extracting force, as it ought to be. He knew no good account of the beautiful adaptations of the ordinary English forceps in its present form, into which it had gradually grown. There was much latent ingenuity in it, and one of the most beautiful of its points was the adaptation of the length of the handle to the production, almost if not altogether unconsciously, of a pressure on the child's head sufficient to prevent slipping and proportioned to the extractive force exerted. The greater force used, the firmer the grasp of the handles, the stronger the compression of the child's head, a necessary increase of compression. All this adaptiveness was lost in Tarnier's forceps, which was, however, in most respects a model of scientific ingenuity.

Dr. Galabin said, that Professor Tarnier's forceps appeared to him in two respects to fulfil imperfectly the design of the inventor. In the first place, the so-called indicating needle had not the first requisite of a perfect indicator; namely, to be so light as not itself to affect the position or motion indicated. The weight was considerable, and acted at an enormous leverage, so that in the dorsal position usual in France the indicator would fall somewhat below its true position. Again, the articulation between traction-stems and prehensile branches did not lie on the transverse axis through the centre of the head, as it should do, in order to allow the head perfect mobility in extension and flexion, but was considerably in advance of this point. Thus the effect of traction would modify in some degree the movement of extension, and consequently the direction of the indicator, and this disadvantage was not to be counteracted, as with ordinary forceps, by the judgment of the operator as to the right direction of traction. Both causes would tend to make the direction of traction too much posterior, while with the ordinary forceps it was too much anterior. The former error was the more dangerous, since it was the perineal body which was

most liable to injury in extraction by forceps, and not the anterior vaginal wall or bladder.

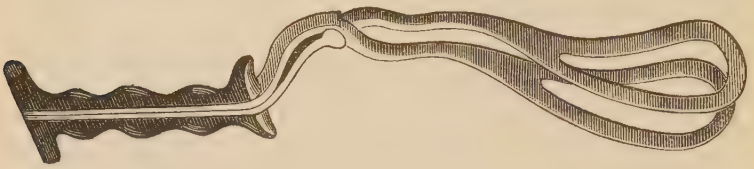
Dr. FANCOURT BARNES remarked that, in the discussion on Tarnier's forceps, one most important advantage claimed for it by Professor Tarnier had not been noticed by any of the speakers, namely, that when it was applied to the head above the pelvic brim the moment traction was made it at once drew the head backwards into the hollow of the sacrum, and did not exert a vicious pressure on the symphysis as the ordinary long forceps did.

Dr. AVELING said that, as he proposed at an early date to offer some remarks to the Society upon the subject of curved-handled forceps, he would merely state that he thought the sigmoid form of these forceps was correct. There had been a movement in this direction since the time of Dr. Johnson, who first introduced the perineal curve, and the idea had been further developed by Hermann, Hubert, Moralès, Tarnier, and ten years since by himself. He hoped to be able to show that the perineal and handle curves were a logical sequence to the pelvic curve, and that they were practically advantageous.

In reply to questions by the President, and remarks by Drs. Braxton Hicks, Mathews, Duncan, and Galabin, Dr. WILTSHIRE said, that the width at the broadest part between the blades was about three inches; that the shape of the blades had been specially modified, as the instruments showed, so that they accurately fitted the fœtal head without overlapping it; that in use they were found to be less complicated than they appeared; that compression of the fœtal head could be readily intermitted at the pleasure of the operator by unscrewing the vice; and that it appeared to him that the handles might advantageously be made lighter.

Dr. GALABIN showed a pair of forceps designed to attain one of the objects aimed at by Prof. Tarnier, namely, to allow the direction of traction to be precisely that of the axis of the pelvis where the centre of the head was situated. Prof. Tarnier went too far in saying that this could never be effected with ordinary long-curved forceps, but it could only be done by making one hand the fulcrum of a lever, while the other acted as the power. When powerful traction was required this could not be carried out, and the line of force must be from the centre of the head to the handles of the forceps, thus causing undue pressure on the anterior pelvic wall. The instrument shown was similar in principle to

several of those mentioned by Dr. Aveling, but differed from the English in the shape of the handles, and from the foreign patterns in having an English lock. Below the lock the shanks were curved backwards until they met the prolonged axis of the blades, and then ended in straight handles coincident with that axis. The backward curve was more



complete than in the forceps of Moralès. The handles had flanges for the fingers of the left hand like those of Simpson's forceps, which afforded a better hold than the ring-like aperture for one finger in those of Dr. Barnes'. The transverse part of the shanks also afforded a very powerful hold, if necessary. The forceps being properly applied, traction in the line of the handles would be precisely in the correct axis of the pelvis, and it was left to the judgment of the operator to carry the handles forward in proportion to the descent of the head. In difficult cases he had found the instrument much easier to lock than the ordinary forceps, since the shape of the handles gave a great facility in rotating each blade. In two cases of arrest above the brim in pelvic contraction, in which Barnes' forceps had been repeatedly applied by himself and his assistants, and on each occasion had slipped, the new instrument was found to hold perfectly. In one of these extraction was effected, and craniotomy thereby avoided. The instrument was designed more especially for the high forceps operation, but might be used equally well in all positions of the head. If it were desired to promote rotation of the head, it was only necessary to rotate the handles on their own axis. The instrument is made by Mr. J. Millikin.

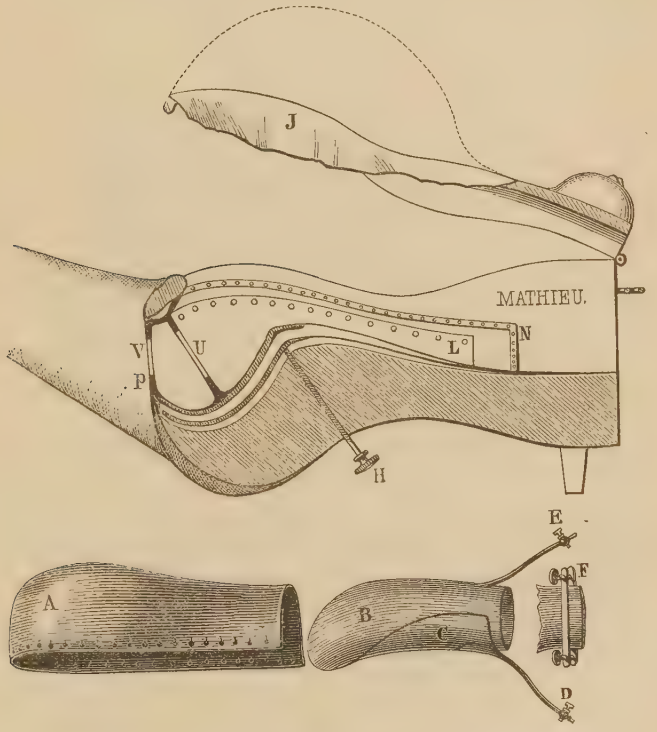
Dr. Braxton Hicks thought that in the triple-curved instruments the tendency of traction on the end of the curved

handles would be to tilt the ends of the blades backwards, and that it would be difficult to gauge the amount and direction of force used during traction.

Dr. AVELING remarked, that the forceps exhibited by Dr. Galabin were identical in form with those of Moralès. He thought the long, straight handles cumbersome and unnecessary.

Dr. FANCOURT BARNES exhibited a most ingenious model phantom for obstetric classes, designed by Drs. Budin and Pinard, of Paris, and made by Mathieu fils. He said

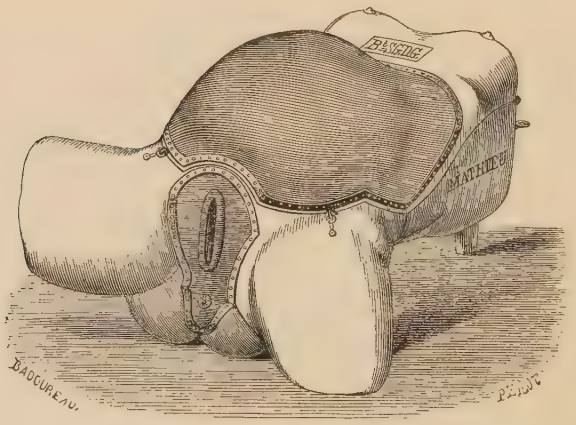
FIG. 1.



the model was in carved wood, and represented the body of a woman from the breasts to the knees; the thighs are

abducted in the French obstetric position. The soft parts, the abdominal walls, uterus, perineum, and vulva are in caoutchouc, and can be replaced when worn out. It contains a caoutchouc bag (B, fig. 1) in which the fœtus can be placed, and the bag then filled with water; it is then placed in the uterus (A, fig. 1), and the position of the fœtus diagnosed by palpation through the abdominal walls (J, fig. 1). The caoutchouc covering (A, fig. 1) represents the anterior wall of the uterus, and when buttoned along the line (L V, fig. 1) completes the uterine cavity. In fig. 2 the whole phantom, shut up and containing the fœtus, is seen in the

Fig. 2.



French obstetric position. It can be arranged, however, for English or American classes in the left lateral position. In fig. 1, D and E, are taps to run off the water. U is a ridge of india rubber representing the dilated os uteri, V is the vulva, and P the perineum. The sacrum can be moved forwards by means of a screw—so that various degrees of conjugate contraction may be produced, through which the operations of applying the forceps, version, cephalotomy, cephalotripsy, embryotomy can be performed.

In demonstrating the various obstetrical manœuvres on the phantom, it is necessary to have a dead fœtus, either

fresh or one that has been kept in spirit, and some vaseline with which to lubricate the fœtus. Vaseline is the cleanest lubricant for the purpose, and does not injure in any way the caoutchouc.

Dr. Braxton Hicks exhibited the phantom he had for some years employed for class purposes in midwifery. It was a real pelvis placed in wood, carved so as to represent half of the uterus, body, and thighs, the whole covered and lined with pure rubber. The fœtus was a real one, preserved in spirits, and when required for use is covered with grease or soap; whereby the natural slipperiness was imitated, which at the end of Dr. Galabin's paper, when the effect of traction on either fœtal leg in the arm-presentation was clearly exhibited.

Dr. Routh said that the dead body would be much better than phantoms. It was used in Vienna.

Dr. Edis thought the suggestion of Dr. Routh was a somewhat dangerous one. The lecturer, after demonstrating operative midwifery to his class on the cadaver in the morning, might be called immediately to a case of labour and thus carry contagion. Whilst studying at Vienna some years ago he (Dr. Edis) had seen serious consequences from this very cause. Students went direct from practising on the cadaver into the lying-in room, and so caused many fatal cases of puerperal septicæmia.

Mr. G. D. Brown inquired whether, in the demonstration spoken of, the uterus was natural as well as the remainder of the body. He could imagine a sufficient supply of female bodies, but not of such bodies with uteri in the dilated state necessary to receive a fœtus.

Dr. Gervis could bear testimony to the excellence of Dr. Hicks's dummy. A similar one had been in use at St. Thomas's for many years. He ventured to suggest, however, that it was better for it to be placed nearer the edge of the stand on which it rested than was the case in the one exhibited, the introduction of the upper blade being so much facilitated by the patient's hips being close to or even over the edge of the bed.

ON A DIAGNOSTIC SIGN OF VAGINAL HÆMORRHAGE DURING PARTURITION.

By Dr. Paul Budin, of Paris.

The hæmorrhages following confinement have given a lively interest to accoucheurs, and of late years specially to the English accoucheurs. If it is useless to insist on their gravity, perhaps it is not so to be reminded of the errors of the diagnosis to which they may give rise. "Great and even fatal hæmorrhage," said J. Matthews Duncan, "may be erroneously supposed to be ordinary post-partum flooding, when it is really running from an unsuspected source. I have seen an artery in the perinæum bleeding freely twelve hours after delivery. Among such unsuspected sources are injuries of the cervix, of the vagina, of the nymphæ," &c. In those cases the treatment is at a loss, and the patients, if they do not succumb, may be in a great danger. A certain number of authors, Klaproth, Winckel, Poppel, Muller, Schroeder, and Laroyenne have called attention to the hæmorrhages of the clitoris. It is generally easy to detect these hæmorrhages, but varicose veins situated on the level of the anterior half of the vagina may also break; if the mucous membrane remains intact, a thrombus may be formed; if, on the contrary, it is torn at the same time as the vessel, an abundant hæmorrhage will happen, of which the starting-point will remain unknown. The relation of the facts which follow will perhaps, in some cases, show the way in future for the diagnosis.

On the 22nd of October, 1876, at half-past two in the afternoon, a woman, primipara, named Margaret R—, æt. 22, was confined at "La Maternité de Paris." The child was presenting its head in the first position, O.T.G.A. The head was hardly out but it bent lightly on the left side, and we then saw a flow of blood running on each side of the neck. That blood could not come out from the uterus, as

the shoulder and the body were filling the vagina. Both were expelled in their turn, and as they were coming out, the right lateral side of the child (which side was in an upward direction) was seen covered with blood. We immediately thought of a hæmorrhage of the clitoris, of which M. Laroyonne, of Lyon, had some months previous related several cases. After the birth of the child blood continued to flow abundantly, it was vivid and came out of the right lateral region of the clitoris. Cold water was used several times, and the hæmorrhage sensibly diminished; some minutes after the placenta came out by expression. It came edgeways, its uterine surface was not covered by the membranes. As the flow was continuing through the wound of the clitoris a few fresh washings were used with cold water, then during ten minutes pressure was applied directly on the bleeding parts by means of the finger, and brought the hæmorrhage to an end. The child was voluminous, of the masculine sex, forty-nine centimètres in length, and weighing 3790 grammes.

Two months later, on the 16th of December, we were present at La Maternité at the confinement of a woman named B—, also primipara. The head presented in the first position, O.T.G.A. When the body came out we remarked on the right shoulder a large spot of blood which spread on all the lateral part of the trunk and on the backside. While the child was being wiped its free breathing was allowed and the cessation of the beatings of the funis was waited for. Calling to our mind the fact which precedes we feared a hæmorrhage, the source of which would not be at the level of the clitoris, but a little behind, as no blood had run on the neck of the child. In looking attentively to the genital parts we saw two or three minutes afterwards blood flow abundantly. I mentioned this hæmorrhage to the assistant-midwife (aide sage-femme) who attended the child, and told her the probable origin. She did not believe me at first, and then, placing her hand immediately on the front of the uterus, pressed and depressed this organ. A certain quantity of clots came out of the vulva, she then believed in an uterine

hæmorrhage, and sent for some ergot of rye. I made her notice that the uterus was contracted and hard under her hand, and that, however, an abundant flow of blood was still persisting. After placing the woman in a position which allowed the light to fall on the genital parts, I opened the labia and the walls of the vagina, and then I saw oozing out on the right side a small stream of very red blood, the colour of which contrasted with the dark shade of the vagina. There were in that spot numerous and voluminous varicose veins which had broken in a part which could be seen exactly after having wiped out with a piece of linen. In the same way, on the left side of the vagina, there were enormous varicose veins which were equally torn, and through which flowed a certain quantity of blood.

It is easy to understand what took place. As soon as the body of the child was out, blood had flowed and accumulated in the vagina. That canal had been dilated until at last the blood poured quite out. In compressing the uterus that organ had been lowered, and, at the same time, the clots contained in the cavity of the vagina had been expelled. The pressure made at that moment by the assistant-midwife had sufficed to make the placenta come out. A piece of linen was introduced in the vagina, and compression exerted. Hæmorrhage ceased. Ten minutes after compression was stopped. On the right lateral side there was no more bleeding, but the flow persisted on the left side. Pressure was applied anew, and after a quarter of an hour hæmorrhage had completely ceased.

A fortnight afterwards we had an opportunity of noticing a third fact analogous to the preceding one. It was still the case of a primipara. When the body came out, on the shoulder and on the side, which was in an upward direction, was a large spot of blood. I was able, to the great astonishment of the pupils, to predict an hæmorrhage from the walls of the vagina. In fact, some minutes after, blood streamed abundantly. Clots contained in the vagina were taken away, the labia were open, and it was seen that a broken varicose vein was the origin of the hæmorrhage,

which was stopped by washing with cold water and by pressure.

Such are the facts which we have seen. Founding our opinion on the presence of the blood on the shoulder and body of the child,—moreover, believing that if rupture at the level of the neck of the uterus had given rise to that flooding the blood would have been taken away by the friction of the child's body against the walls of the vagina,—we were able to suppose, recognise, and even foretell a hæmorrhage of this canal. Ulterior observations made by other authors will decide if that sign truly possesses all the importance that we are inclined to attribute to it; at all events we have thought these facts worthy of being briefly noticed.

Dr. Edis thought the paper of much interest, as directing attention to a frequently overlooked cause of post-partum hæmorrhage. Quite recently he had been called to see a patient, several hours after labour was completed, where hæmorrhage had been very severe and continuous. On examination a rent, nearly an inch long, was detected just under the right ramus of the pubes, from which bright blood was found to be jetting. This was due to rupture of the internal pudic artery during the expulsion of the head through a rather small vaginal outlet. As the patient was very exhausted, and the artery could not be secured by ligature, a small dossil of cotton wool, saturated in strong Liquor Ferri Perchlor., was applied, a catheter passed per urethram, a pad of lint placed over the wool, and a T bandage adjusted. The hæmorrhage was completely arrested, but very little sloughing occurred, and the patient made a good recovery.

Dr. Wilshire asked if sloughing followed the application.

Dr. Edis replied, it was not a question of sloughing, but a question of saving life.

CASE OF SUPPOSED CANCER OF BOTH OVARIES.

By J. Lucas Worship.

Case.—C. B—, æt. 20, consulted me in May, 1876, for a considerable swelling in the abdomen, which she attributed to a fall she sustained whilst getting out of a railway carriage

whilst the train was in motion. She had always enjoyed good health, and her catamenia was regular. She first became unwell at fourteen years of age, and with one exception had never lost a period. There was no excess at these times.

On examining the abdomen externally, I found a very considerable swelling; and on pressing it I found it so loose that it gave me the impression that she was pregnant. She suffered no pain, but was uncomfortable from the size and weight of the swelling. Per vaginam I could discover nothing wrong in the uterus, but a large mass on the left side. As she was merely feeling weak I contented myself for the next two or three weeks in giving her a tonic, from which she appeared to derive benefit.

In September last I sent her to see my friend Dr. Gustavus Murray, who considered her to be suffering from double ovarian mischief, and we were to have seen the case again together. On my telling him, however, that I had attended one sister with cancer of the liver, a brother with cancer of the lung, and an aunt with cancer of the pylorus, he made up his mind that this was a case of malignant disease.

I never saw her again until the night of October 29th, when I found her very much emaciated and suffering severe agony of pain in the left side; constantly vomiting large quantities of green matter. She waa excessively weak, and I gave her some morphia and bismuth, which somewhat quieted the sickness and allayed the pain. I saw her again on the evening of the 30th, when I found her moribund.

I had some difficulty in persuading her relations to allow a post-mortem examination to be made, but this I was enabled to do early on Saturday morning, November 3rd. I found the abdominal parietes much discoloured and distended.

On opening the abdomen I found a large chain of mesenteric glands lying over the tumour, which was only partially concealed by the intestines on the left side; I found the tumour so impacted in the pelvis that I had very

considerable difficulty in removing it. This I now show with the uterus, and I believe the two ovaries had taken on cancerous disease in a very severe form.

She had been under Dr. Herbert Snow at the Cancer Hospital, and Mr. Spencer Wells had also seen her at the Samaritan Hospital. It was Dr. Snow's opinion that she had no uterus, as the os uteri was so small and there was so much difficulty in making out the cervix; but to prove that this is a mistake I have preserved a portion of the vagina and the entire uterus.

I subjoin Dr. Murray's notes on the case which he has kindly sent me.

"September 22nd, Miss C. B—, æt. 19. On May 1st she had a fall from the train to platform. She has not menstruated since end of July, and on that occasion very slightly so. She never menstruated much. She usually feels sick, and is now drowsy. Bowels regular. No mammary signs of pregnancy.

"Examination of abdomen.—Large hard irregular mass (nodulated) filling most of abdominal cavity. No fœtal or placental sounds. Tumour two inches above umbilicus.

"Examination per vaginam.—Hard mass filling up sacrum. The os uteri pressed against and behind os pelvis. Sound passed with a little difficulty to three and a half inches. Diagnosis not clear. Would like to see her again. It might be double ovarian, malignant? Symptoms do not justify fibroid nor pregnancy at that stage, and hardly extra-uterine fœtation."

I append the notes made by Dr. Herbert Snow on the case:

"C. B—, æt. 20. No family history of cancer or other tumour. Fell from railway carriage in May, 1876. In following June, three weeks after accident, occasional shooting pain in left groin, followed by appearance of a tumour, which has since continued to increase in size. Has always menstruated irregularly, usually about every three months.

"Admitted at the Cancer Hospital as an in-patient for purpose of examination in December, 1876 (paper has been

mislaid). Tall, robust-looking, rather florid, well-developed girl. A large tumour fills greater part of abdominal cavity, lying chiefly to left side; this is of stony hardness, largely and irregularly nodulated, freely moveable and loose. Extends from pubes to about an inch below the fibroid cartilage; about four inches to right of umbilicus, and five or six to left. Very prominent.

"Per vaginam, a hard, rounded, smooth body felt on posterior wall, two inches from vulva; somewhat tender on pressure. No opening in this; doubtful if uterus. No trace of os uteri or cervix to be felt anywhere; two fingers can readily be passed above this body into upper end of vagina, which forms a *cul-de-sac*.

Per rectum, in addition to this body, several enlarged glands can be felt along the sacrum. No connection could be made out between the tumour in the vagina and the abdominal tumour.

"General health perfect, except some constipation; no emaciation, occasional pain somewhere about left groin, but this only slight. Became out-patient after a fortnight; directed to appear once a month. No albuminuria.

"On February 22nd, 1877, tumour appeared to have somewhat increased; had felt pain the previous week, but none till then since the patient's stay in the hospital. Now menstruates regularly, which she has never done before. Some tendency to constipation, and occasional straining. No impairment of general health. Tumour still freely moveable; skin becoming more tense over it.

"Subsequently the girl attended about once every six weeks. Her florid colour and robust appearance remained unimpaired, and no symptoms manifested themselves beyond constipation, and latterly some amenorrhœa.

"She was last seen, I believe, on December 11th; then complained of severe pain in left side, but there was nothing in her appearance to cause uneasiness.

"Mr. Spencer Wells kindly saw the case in March, 1877; and gave it as his opinion that the tumour was a uterine fibroid with calcareous ougrowths.

"After leaving the hospital the girl was directed to measure herself at the umbilicus before each visit. She reported a slight diminution for the first few weeks. But for the last five or six visits she stated there was no alteration; and once her statement was verified.

"Under the microscope the tumour consists of small, pale, oval, or round, faintly granular cells; some with a small dot for nucleus, in others no nucleus could be distinguished. There were also numerous triangular prisms (blood crystals). In the enlarged gland similar cells; the only difference being that in the latter a few cells had larger nuclei, and thus more closely resembled cancer-cells."

ON THE CHOICE OF THE LEG WHICH SHOULD BE SEIZED IN VERSION FOR PRESENTATION OF THE UPPER EXTREMITY.

By A. L. Galabin, M.A., M.D.,

LATE FELLOW OF TRINITY COLLEGE, CAMBRIDGE; ASSISTANT OBSTETRIC PHYSICIAN AND JOINT LECTURER ON MIDWIFERY TO GUY'S HOSPITAL.

The point in the mechanism of the operation of version which I propose to consider in the present communication refers only to cases in which the liquor amnii has escaped, the uterus is more or less firmly contracted, the bipolar method of version is therefore no longer possible, and it is necessary to introduce the hand into the uterus to seize the knee or foot. It is generally agreed that, when bipolar version can be effected, it is of little or no consequence which leg be taken, and that it is sufficient to take whichever knee or foot is found to be the nearest. This, in cases of presentation of the shoulder or arm, is almost invariably the lower, or that on the same side as the presenting shoul-

der. But, in version by the internal method, the doctrine now commonly taught in England, and which students are expected to maintain, is, that it is necessary or desirable to carry the hand on to seize the upper knee, or that diagonally opposite to the presenting shoulder. From the fact, however, that the lower knee is necessarily the nearest and easiest to seize—in some rare cases very much the easiest—it is probable that, in former days, before the present doctrine had been laid down, practitioners were accustomed almost invariably, if they could not take both feet or knees, to take the lower one. And even at the present time I imagine that this is in practice often done, even by those who have learnt the contrary doctrine. For, at any rate in the case of one who feels himself at all inexperienced or diffident of his skill in the execution of the operation, there is a natural tendency to seize whichever knee or foot he can feel, without even waiting to make certain to which side it belongs, and be thankful that it is not an elbow or hand. In such cases the limb taken will almost invariably be the lower one. In the present paper I desire, from a consideration of the mechanics of version, to make some attempt to justify, on rational grounds, as applicable to at least the majority of cases, the practice which has thus been formerly orthodox, and is even now common.

The practice now taught is due to Sir James Simpson, and I will, in the first place, quote a portion of the passage in his lectures in which he recommends it:

"Which knee should be seized? On this point you will find no directions in any of our modern obstetric works, British or foreign, as far as I know them; and yet I believe the secret of turning with facility and safety in such a case as Anderson's—with the waters evacuated, and the uterus contracted—depends upon the knowledge of which of the two lower extremities of the infant should be seized. If we turn with one of the extremities—and whether the foot or the knee—it should be the foot or knee of the *opposite side of the body* to that which is presenting."

* * * *

"The reasons for the rule are simple. In bringing down the fœtus in the operation of turning, we may and should produce two kinds of alteration in its position and figure. Thus we may flex or bend the body forwards upon the *transverse* axis of the trunk; and we may rotate or turn the body round upon the *longitudinal* axis of the trunk. If we merely flex it the operation of version will be one of difficulty; if we both flex and rotate the trunk at the same time the operation will be one of comparative facility. By merely flexing the body upon its transverse axis, we are liable to bring down one of the lower extremities, whilst we do not displace the upper extremity, which is primarily presenting at the os uteri. If we both rotate and flex the body —that is, turn it both on its transverse and longitudinal axis—at the same moment, whilst we bring down the pelvic extremity of the child, the turning of the body of the infant carries away from the os uteri the part originally presenting."

Sir James Simpson goes on to say that the increased difficulty of seizing the upper knee is more imaginary than real, since the knees generally lie near together.

The teaching of Sir James Simpson has been followed by Dr. Tyler Smith and Dr. Barnes. The latter appears even to carry the view somewhat further than Sir James Simpson himself, for he deprecates the bringing down both legs, not merely because the advantage of the half-breech as a dilator is by that means lost, but as interfering with the mechanism of the rotation. "If," he says, "both feet are seized, or only the foot of the same side as the presenting arm, version can hardly be completed, and will perhaps fail altogether." And, again, "to turn effectively, the child must revolve upon its long or spinal axis, as well as upon its transverse axis. If you seize both legs, you mar this process." The same doctrine with regard to the choice of the knee is adopted also by Dr. Meadows and Dr. Playfair. It is with extreme diffidence that I venture to criticise the teaching of such obstetric authorities as the five whom I have named. I am encouraged, however, to do so by the fact that some

well-known names may be cited upon the other side. Thus, the late Professor Martin, of Berlin, maintained the diametrically opposite view, and held that the seizure of the upper knee was then only to be recommended when space was ample and the version easy. Carl Braun and Arneth recommend the nearer leg to be seized, and those who give no special direction on the subject must be held to be on the same side, since the lower leg will almost always be taken, if no special effort be made to the contrary. Not to mention therefore the majority of older authors (including Ramsbotham, Scanzoni, Hodge, and others), I may quote both Schroeder and Leishman as holding the opposite opinion to that of Simpson, Tyler Smith, Barnes, Meadows and Playfair.

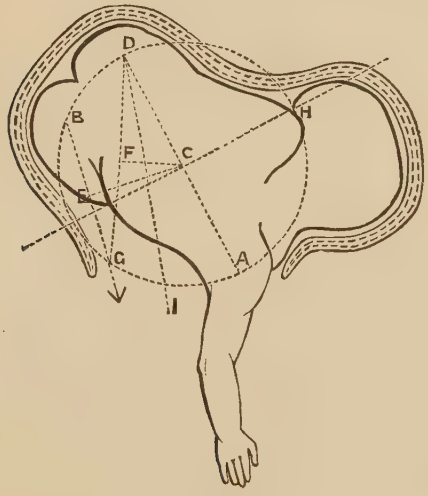
Sir James Simpson was not the first to recommend seizure of the upper knee or foot under certain circumstances, although he was original in insisting upon the principle of making the traction upon the opposite pole of the fœtus to the presenting shoulder. In abdomino-anterior positions it had already been recommended by Baudelocque and Lachapelle to take the upper foot, in order to rotate the fœtus upon its own longitudinal as well as upon its transverse axis, and thus render the back anterior after the version, a more favorable position for extraction. The same practice has also been enjoined by Weiss, Michælis, and Gusserow. It is now, however, generally understood that the back invariably rotates anteriorly at last, during the process of expulsion or extraction; and few would wish, on account of the position of the back, to trouble themselves to effect by the hand within the uterus a rotation which will occur spontaneously without requiring interference or causing very great delay.

It is evident that, in shoulder presentations, the long axis of the child being diagonal, or nearly transverse, version may be effected in at least two ways. In the first, rotation takes place in the bilateral plane of the fœtus, and about its antero-posterior axis. No complete turn is required, but a rotation of little more than 90° brings into the os the half-breech of the same side as the presenting shoulder, the back

still looking in the same direction as at first. Such is the kind of version produced by seizing the lower knee or foot. In Fig. 1, which is intended to represent a section in the bilateral plane of the fœtus, the rotation in this first kind of version takes place in the plane of the paper, and about an axis perpendicular to it, and passing through C, the centre of the fœtal trunk. By its means the half-breech B is brought into the position at first occupied by the shoulder A. It is clear that by this kind of rotation the half-breech is substituted for the shoulder with the smallest amount of movement of the fœtus, although both Sir James Simpson and Dr. Barnes, who alone of British authors discuss the mechanism minutely, ignore this rotation on an antero-posterior axis, and consider only a rotation on a transverse or on a longitudinal axis, or a combination of the two.

The second mode of version is that which it is intended to

FIG. 1.

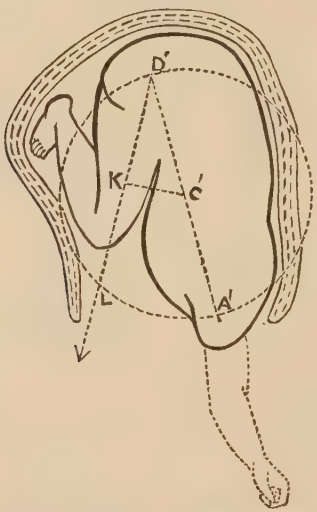


Section in bilateral plane of fœtus. E C = 134; C F = 90.

effect by seizing the upper leg. The object is to rotate the fœtus through a complete half circle in that antero-posterior plane of its body which passes through the presenting

shoulder and through the hip of the opposite side, that is, in Fig. 1, in a plane perpendicular to the paper and passing through the line A D. The axis of rotation will therefore be a line in the plane of the paper passing through C at right angles to A D, that is to say, the line C H. Fig. 2 is intended to represent a section of the fœtus in the diagonal plane in which this rotation takes place, passing through the right or presenting shoulder and the left hip, and the axis of the rotation will thus be a line passing through c′ in Fig. 2,

Fig. 2.



Section in antero-posterior plane of fœtus, passing through right, or presenting, shoulder and left hip. C′ K = 85.

perpendicular to the plane of the paper. This mode of rotation may be regarded as a combined rotation of the fœtus at the same moment upon its transverse and longitudinal axis, as it is by Sir James Simpson in the passage already quoted, and also by Barnes.

It does not, however, follow that in all cases rotation of this kind, namely, about the line C H, in Fig. 1, will be effected when the upper leg is seized. This will only be the case when the traction force applied to the upper hip (D) is

so directed that its projection on the plane of the paper in Fig. 1 lies in the line D A, or, what is equivalent, that the line of force lies wholly in the plane of the paper in Fig. 2. If the direction of traction lies to one side of the shoulder, as D G or D I in Fig. 1, there will be a component force tending to rotate the fœtus about its antero-posterior as well as about its transverse and longitudinal axis. The resultant rotation will then be more complex; or it may be that the two other rotations are prevented by friction or resistance, and that the rotation about the antero-posterior axis alone takes place. In such case the seizure of the upper leg will merely have effected the same kind of rotation which seizure of the lower would have done, but at a less mechanical advantage. For the moment of the force, or its efficacy in producing rotation about an antero-posterior axis, is measured by the product of the force, or its component in the plane of Fig. 1, and the perpendicular upon its direction from C, the centre of the fœtal trunk. This, when the lower leg is taken, is C E, when the upper leg is taken it is C F, and in the latter case there is a loss of mechanical advantage in a ratio, which, in the position given in the figure, is about 134 to 90.

It has been my experience that the desired rotation of the fœtus upon its longitudinal axis does not always take place when the upper leg is seized. In dorso-posterior positions, with shoulder presenting, I have found that the back often remained posterior after version by the upper knee, and I fancy that others must have observed the same if they have carefully examined the position of the back immediately after the version. In such cases the version must have taken place solely about the antero-posterior axis, and at the mechanical disadvantage above explained.

In a paper by Dr. Fritsch, in the 'Archiv für Gynäkologie,' vol. viii, 1872, in which, although for different reasons, he advocates the same view which I am now maintaining, is contained a table of fourteen cases of shoulder presentation in the dorso-posterior position, minutely observed in the Poliklinik at Halle, in which version was performed by the upper foot. In every single case the back remained

posterior immediately after the version, eventually rotating forwards. In nine cases, however, of shoulder presentation in the dorso-anterior position, in which version was also performed by the upper foot, the back was rendered posterior in all, and thus the combined rotation of the fœtus on its transverse and longitudinal axis was effected. The explanation is probably the following. In order to rotate the fœtus either on its transverse or longitudinal axis by traction on the hip, the force must be inclined towards its anterior surface. In abdomino-posterior positions this is easily done, for there is then most room for the operator's hand and arm in the concavity of the sacrum, at the convex side of the pelvic curve, and he can readily draw somewhat backward in relation to the pelvis, and therefore forward in relation to the fœtus. In abdomino-anterior positions, however, the pubes allows but scanty space for the hand to be bent backwards round the sharp angle at the concave side of the pelvic curve. Hence the hand naturally deviates more or less to one side, and traction is not directed sufficiently forwards with regard to the pelvis and the fœtus. At the same time, by its lateral deviation, it tends to rotate the fœtus about its antero-posterior axis, as shown by the line D G or or D I in Fig. 1. It is doubtless of quite secondary importance what the direction of the back is immediately after version, but it is somewhat singular to note that, in version by the upper leg, the fœtus appears to be rotated on its longitudinal axis exactly in those cases in which rotation is disadvantageous as regards the direction of the back, while rotation often fails when it would be advantageous in that respect.

The next point to consider is, in which of the two modes of version the traction force acts at the greatest advantage in producing rotation. In examining this it will be assumed that in version by the upper leg the force is wholly effective in producing rotation in the antero-posterior plane of the fœtus passing through the presenting shoulder and opposite hip, that is to say that its direction is the most favorable possible. It will then lie in the plane of the paper

in Fig. 2, let us suppose in the line D′ L. It will also be supposed that the force is directed towards a point in the os uteri equidistant from the centre of the shoulder in the two cases, so that A G in Fig. 1 is equal to A′ L in Fig. 2. The traction then being the same in the two cases, its efficacy in producing rotation will be in the ratio of the perpendicular C E from the centre of the fœtal trunk upon its direction in Fig. 1 to the corresponding perpendicular C′ K in Fig. 2. The former will in general be the greatest, and the more so in proportion as the long axis of the fœtus approaches more nearly to a transverse position. In the figures the ratio is about that of 134 to 85. Hence in those cases in which rotation in the bilateral plane of the fœtus by means of the lower leg is successful in elevating the presenting shoulder, it can generally be effected by a less force than rotation in the diagonal antero-posterior plane by means of the upper leg, and this advantage is the greater the more nearly transversely the fœtus is lying.

I have here to refer to an argument of Dr. Barnes, which appears to me to be not altogether mechanically sound. He says that, in drawing on the lower leg, the line of motion of the leg is more or less perpendicular to that of the shoulder, and that the body therefore bends upon its side, the leg and shoulder get jammed together, and the version fails. By drawing, however, upon the opposite knee to the presenting shoulder, the movements, he declares, run parallel in directly opposite directions, like the two ends of a rope which is passed over a pulley, and the upper leg cannot be drawn down without causing the whole trunk to revolve and the presenting shoulder to rise. Now, it is only in their projection upon the bilateral plane of the fœtus, in which it is viewed in Dr. Barnes' diagrams, that the movements of the two poles are in parallel lines in version by the upper knee, and, when the three dimensions are taken into account, this is not the case. It is, indeed, clear that if a bar be rotated about any transverse axis the movements of any two points in it, whether or not they are at exactly opposite poles, cannot be in parallel lines, but must be in

arcs of circles so long as the bar does not become bent upon itself. So with the fœtus, the movement of the hip B or D′ is, in both cases, along the circles drawn in the figures so long as the fœtal trunk does not become doubled up, and in neither instance is is it in the direction of the tractile force. The movements of the hip and shoulder only tend to become parallel lines in so far as that doubling up of the fœtal trunk occurs, which all agree to be undesirable. It is true that the tractile force in version by the lower knee, acting along the line B G in Fig. 1, has a greater tendency to bend the trunk sideways than the force in version by the upper knee, acting along the line D′ L in Fig. 2, has to flex it, but only so far as it acts at a greater leverage in producing its respective rotation.

The mechanism by which the version is effected is not altered by flaccidity of the fœtus. For, as long as the force is expended in bending the fœtal trunk, the shoulder is not elevated. But a certain point is arrived at, at which the limit of flexion is reached. The fœtal trunk then becomes virtually a rigid body, with reference to that particular kind of flexion, and begins to rotate as a whole, causing elevation of the shoulder. The mechanism is then the same as that represented in the figures, except that the length A B, or A D, as the case may be, is shortened. It may be, however, that in cases of extreme flaccidity the limit of flexion is not reached before the thigh is brought into the os, and then the shoulder will not rise at all. This may be more likely to happen when the lower leg is taken. In no case can there be any analogy to a rope passed over a pulley, since there is nothing corresponding to the pulley, upon which alone the elevation of the other end of the rope in that instance depends.

I admit, therefore, fully the importance of the rotation of the fœtus upon its long axis, produced by traction upon the upper leg, in elevating the shoulder, when this cannot be effected by other means. But I think that the explanation of this is not that version by the upper leg has a less tendency to double up the fœtal trunk, or produces a more

nearly parallel motion of the hip and shoulder, but simply that a more complete doubling together of the fœtal trunk would be necessary for the shoulder and hip of opposite sides than for those of the same side to be together engaged in the os uteri; and that, by the resistance of the fœtal trunk to this more complete doubling together, the elevation of the shoulder is effected.

From the foregoing considerations I have been led to conclude that, in the majority of cases, the lower knee is not only easier to reach, but effects the version at a greater mechanical advantage, and therefore with less expenditure of force. In most cases, indeed, the increased difficulty of carrying on the hand to reach the upper knee is but slight; but sometimes, when the liquor amnii has long escaped, the fœtal head is doubled upon its chest and the knees bent up at each side of the head. The head then intervenes between the operator's hand and the upper knee, while the lower knee is quite near to the os uteri, and the extra difficulty in reaching the former may be considerable. And in all cases, unless there be valid reason to the contrary, the principle of taking the nearer knee may be defended on the same ground as that, which is now generally accepted, of taking the knee in preference to the foot.

In taking the lower knee another advantage presents itself as regards the after extraction, which I regard as being of greater importance than those hitherto mentioned, and which is the main reason why I recommend this expedient in most cases. It is, of course, well known that it is during extraction that the life of the fœtus is commonly sacrificed in cases of presentation of the upper extremity, and that this very often occurs through delay in the liberation of the arms. For the pelvis is often more or less contracted in such cases, and the fœtus has probably had its life already endangered by protracted pressure. It is therefore often not possible after version to leave, with safety, the expulsion to nature; and, when traction is made, the arms, or one of them, are liable to become extended by the side of the head. Now, the main difficulty in liberation applies

always to the anterior arm. Posteriorly there is more room for the hand; and, since the fœtus is drawn down, more or less, in the axis of the outlet of the pelvis, the posterior shoulder is lower than the anterior, in reference to the pelvic brim, by as much as an inch and a half, and is thus easily set free. The anterior arm, however, is apt to be extended above the brim, and jammed tightly against the pubes. Now, if a noose be placed round the wrist of the presenting arm, and if version be made by the lower knee, the operator will throughout have complete command of the anterior arm, and will be able to prevent its extension. For it need scarcely be said that the leg which is brought down, and therefore the arm of the same side, eventually become anterior. Even if no noose be applied to the hand, the arm which had been prolapsed rarely becomes extended to any important extent, and thus there is even then some advantage in having this arm anterior. The use of the noose is not, I believe, recommended in modern English text-books, but many authors of various dates have regarded it as useful and important, and some have recommended its application to one or both arms even within the uterus. Among those who speak in favour of it I may mention Osiander, Hohl, Scanzoni, Levret, Depaul, Crédé, Hodge, Schroeder, Tarnier, Fritsch, and Pinard.

All theoretical considerations are, of course, only of value so far as they are confirmed by practical experience. Hence, having been led to believe in its advantage on mechanical grounds, I have lately made trial of version by the lower knee in cases of presentation of the upper extremity. I have done this in eight consecutive cases, in which the liquor amnii had escaped for a more or less considerable time, so that bipolar version was no longer possible. In every one I was able to effect the version, in most without much difficulty; and I have not yet in any case, since commencing these observations, found it necessary afterwards to bring down the other leg. I have also thought that the command of the anterior arm was distinctly of use in facilitating extraction.

No doubt, however, some cases occur in which, when version is performed in this way, the shoulder fails to rise. So long, indeed, as the fœtal trunk retains its tonicity, it is scarcely possible for the shoulder and half-breech, even of the same side, to be together engaged in the os uteri; but when the fœtus is dead, and has become flaccid, it may become doubled together in an extraordinary degree. In such cases I believe that the experience of all will confirm the high value attached by Sir James Simpson and Dr. Barnes to the rotation of the fœtus on its longitudinal axis, which may be effected by bringing down the opposite leg. It is possible that it was from the observation of the great assistance derived from traction upon the second leg in these instances, when the lower knee or foot had been taken in the first place, that the doctrine was derived that it is preferable in all cases to seize the upper leg first—a conclusion which is not a necessary sequence.

I believe that the efficacy of this expedient is in no way diminished by the lower knee having been seized in the first instance. For in such very difficult cases of version, in which there is generally little hope of saving the child's life, and therefore the value of the half-breech as a dilator becomes less important, there is a certain advantage in bringing down both legs. In the first place, it furnishes more space in the uterus, and, in the second, it provides a means of applying more powerful traction. Nor do I think that the rotation of the fœtus upon its longitudinal axis is itself at all more difficult after the lower knee has been taken first. For the force tending to produce this rotation will clearly act at the greatest advantage when the breech has been brought down to a transverse position or a little lower; in other words, when the axis of the fœtal trunk, at its posterior extremity, is at right angles to the direction of the traction. In other positions the efficacy of the force will be diminished in proportion to the sine of the angle between these two lines. There would therefore seem to be even some advantage, in very difficult cases, in bringing the breech partially down by means of the lower leg, before trac-

tion is made upon the upper leg, with a view to effect rotation upon a longitudinal axis.

The performance of version in the mode which I have suggested does not necessitate any second introduction of the hand, or any second administration of an anæsthetic, if the bringing down the lower leg prove insufficient to elevate the shoulder. For if the operator fail to effect the desired rotation, after aiding it, if necessary, when the breech has been brought as low as practicable, by direct pressure on the shoulder or by the manœuvre of retropulsion, in which the elbow of the prolapsed arm is used as a handle by which to push up the shoulder, he will at once, without withdrawing his hand, proceed to secure the upper leg, and make the main traction upon that.

In conclusion, I consider the advantages of seizing the lower knee in most cases to be—

1. The rotation of the fœtus on its antero-posterior axis by means of the lower leg is generally effected at a greater mechanical advantage, and therefore by a less force, than the combined rotation on its transverse and longitudinal axis, by means of the upper leg; while it is sufficient to produce elevation of the shoulder, unless the fœtus is dead and flaccid or uterine rigidity extreme, and the upper leg may, with no diminished advantage, be afterwards brought down, if required.

2. If the lower leg be taken, and a noose placed upon the prolapsed arm, the operator has complete command of the anterior arm in the subsequent extraction.

3. By taking the lower leg the more usual dorso-anterior is not converted by the version into a dorso-posterior position, a point of very minor importance, but one which may, in some cases, be worthy of consideration.

Dr. Matthews Duncan had, in the worst case of turning in transverse presentation which he ever met, used the distant leg to pull by and had failed. The force used separated the leg from the already dead child. He then seized the leg homonymous with the presenting arm and succeeded. He had for many years taught the preference of the leg homonymous with the pre-

senting arm, according to the views which he now heard Dr. Galabin so elaborately and successfully advocating.

Dr. C. Holman said that for many years he had followed the practice of bringing down the lower or most dependent knee. He did not know the precise reason for so doing, except that he succeeded. He was grateful to Dr. Galabin for mathematically proving that the practice he had followed for some long period was correct.

Mr. J. D. Brown suggested that the effect of bringing down one or other leg on the version of the fœtus might be tried on the phantoms in the room, though, perhaps, the fœtus used that evening was too limp to give very accurate results.

DECEMBER 5TH, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the chair.

Present—54 Fellows and 10 visitors.

Books were presented by Dr. Graily Hewitt, Dr. Wm. Goodell, Dr. Alois Valenta, the Royal Medical and Chirurgical Society, the Clinical Society, the Medical Society, the Smithsonian Institution, and the Committee on Infant Mortality in Macclesfield.

Dr. John Bedford Kerswill (St. Germans), and Dr. William Stephenson (Aberdeen), having sent up their obligation papers duly signed, were declared Fellows of the Society.

The following gentlemen were elected Fellows of the Society:—Nathan Bozeman, M.D. (New York), John J. Donovan, M.D. (Ballincollig), Henry de Fonmartin, M.D., Arthur C. James, M.D., Edward W. Jenks, M.D. (Detroit), Thomas Derry Jones, M.R.C.S., John R. M. Lewis, M.D., Fred. Moon, M.B. (Greenwich), James Murphy, M.D. (Sunderland), Arthur W. Read, L.R.C.P. Ed. (Coventry), and Henry Wintle, M.B.

Fred. E. Cockell, Jun., M.R.C.S., Thomas Walker Coffin, M.R.C.S., and Joseph Henry Philpot, M.D., were proposed for election.

Dr. ROPER exhibited a fibrous tumour of the uterus, in a state of calcareous degeneration. It was incidentally disco-

vered by Mr. Herbert Capon, of the Dorsetshire County Hospital, in making a post-mortem examination of a woman who had died suddenly from apoplexy.

Dr. Roper also exhibited a placental tumour from a primapara, child dead several days before labour. Nothing unusual during pregnancy or in or after labour had been observed. Dr. Goodhart, who has kindly examined it and reported on it in detail (anatomically, pathologically, and microscopically), believes it to be either a tumour intermediate between the myxomata and fibromata or an organized blood-clot. His opinion is more in favour that the mass is merely an unusually large blood-clot which has undergone some sort of organization and so retained its vitality.

Report on Dr. Roper's Placental Tumour.

The tumour measures $6\frac{1}{4} \times 4\frac{1}{2}$ inches. It is curiously thick and lobulated on its unattached surface (*i. e.* that surface *towards* the uterine cavity), not unlike an enlarged kidney which retains its fœtal lobulations, or like the lobulated kidney of some of the lower animals. This lobulation, distinct enough on the one aspect, is, however, much more decided and irregular on the aspect towards the uterine wall.

The tumour occupies the same relation to the membranes as does the placenta, which lies beside it. It is behind the amnion and the placental membrane proper. The tumour has this membrane (chorion ?) over it and round its edges, but *not* on the surface towards the uterine wall. Further, on injection this membrane is very vascular. I did not think that the tumour itself had become injected, but in this opinion I was wrong, for its section shows many small and even large vessels within it, some quite in its substance, and many of these contain the injection. Its vascularity is still further borne out by microscopical examination; in fact, the want of injection is due to some failure in the flow of the fluid injected, not to the want of vessels to contain it.

A microscopical examination shows a fibroid tissue of very

structureless kind. Much of this is arranged in wavy parallel lines, just as white fibrous tissue is in general, but much of it is merely a hyaline matrix with irregular granules and nuclei dotted in it. There are plenty of large vessels. These microscopical features are, at the same time, more "formed" than is usual in organised blood-clot, and not unlike some tumours intermediate between the myxomata and fibromata. On the whole these, then, are more like tumour than clot, though not, I think, absolutely negativing the latter. These points must be considered against others that have now to be noticed. If attention be paid to what may be called the attached surface of the tumour, it will be seen that the fissures are very deep, and the bosses thus produced are rounded and smooth. This seems to show that although the mass was facing towards the uterine wall it was not attached at any part, and does, I think, prove conclusively that it is not a piece of altered placenta. That it is not a *fœtal* structure is, I think, clear by its relation to the membranes; it is quite behind them. If it is not placental and not fœtal, what else can it be except some new growth or blood-clot? For the reason that it is not a part of the placenta it is not very likely to be a new growth *from* the placenta, because in all probability this would have formed some attachment to the uterine wall, unless, indeed, it be a polypoid form of growth from the wall of some cyst behind the fœtal membranes, yet in the uterine cavity. Against this, however, there is this strong argument, viz. that the rest of the wall is absent, and what is present is quite unlike any wall of a cyst containing intracystic growths. The membrane over the tumour is quite like placental membrane, smooth and thin; so that on the whole I consider, notwithstanding some facts to the contrary, that the mass is merely an unusually large blood-clot which has undergone some sort of organization, and so retained its vitality.

If I am allowed an alternative opinion it would be that it is some myxo-fibrous growth from the edge of the placenta.

James F. Goodhart.

SECONDARY PUERPERAL HÆMORRHAGE.

By C. Stennett Redmond, L.K.Q.C.P.I.

Mrs. H—, a German, æt. 30, married nine years, was delivered of her fifth full-term child on February 18th last. The previous confinement was one year and ten months ago, and previous to that she miscarried at four months.

The labour was natural and very rapid, and the placenta followed almost immediately. She was attended for the usual time by a very experienced and intelligent midwife, who informed me that the discharge, &c., was perfectly normal while the case was under her charge.

I was called in on the evening of March 8th, and found her suffering from considerable hæmorrhage. She had got up and did some household work on the 5th, when the hæmorrhage came on, at first slight, but gradually increased till it became pretty smart, when she got alarmed and sent for me. She flatly refused to allow a vaginal examination to be made, so I had to make the best of a bad job. She had no pain, but of course felt weak and faint from the loss. I ordered her to lie on her back with the head low; applied a tight binder and cold cloths to vulva, and ordered ergot, sulphuric acid, opium, and cinnamon water.

I was summoned again on the next evening at 10.30 p.m. and found her almost collapsed from hæmorrhage, which had literally saturated the bedding. On my declining to attend otherwise, an examination was permitted. I found clots in vagina, os and cervix patulous, readily admitting one finger, which discovered a piece of placenta about the size of a split walnut firmly adherent to the left side of the uterus, close to fundus. I broke it up freely with my finger and removed one small piece which was undoubtedly placenta, about the size of half a hazel nut. I then syringed away the débris with cold water, but the hæmorrhage still continuing very freely and the patient almost pulseless, I thought the sooner it was stopped the better; I accordingly

injected ʒvj of Liq. Ferri Perchlor. in ʒxij cold water which at once stopped the discharge. A firm binder was then applied, the woman placed on her back, and small quantities of cold brandy and water, beef tea, and milk directed to be given at intervals, and the following mixture:

℞ Tr. Ferri Mur., ʒiij;
Æther. Sulph., ʒj;
Sol. Morphiæ, ʒj;
Liq. Ergotæ, ʒij;
Aquæ, ʒvj.
ʒj 2—3 horis.

This was the twentieth day from delivery.

Friday, 10th.—Restless night, much thirst and intense hæmorrhagic, throbbing, headache. Temp. 98·5°; pulse 120, small, weak. Slight pain referred to uterus; no tenderness on pressure; very slight discharge; syringed out vagina with weak tepid carbolic lotion, morning and evening. Omit ergot from Mist. and add 2 gr. doses of quinine.

March 11th.—Good night; very thirsty, tongue moist and pale; skin hot and dry; temp. 103°; pulse 114, weak, small regular; much headache; no vomiting; complains of "soreness" about privates, but no pain on pressure over abdomen, and no tympanites; bowels not open for three days; slight offensive discharge. Continue injection; an enema to be given at once; Mist. as before; diet, beef tea, milk, barley water.

12th.—Restless night; bowels relieved by enema; less headache; considerable thirst, but tongue moist with some white fur on dorsum; no pain on pressure over abdomen, slight tympanites; perspiring rather profusely; temp. 101·3°; pulse 120, small, weak, regular; discharge not so offensive; continue carbolic injection, Mist., &c.

13th.—Rather better night; temp. 101°; pulse 120, weak, small, regular, not so much perspiration, tongue clean; slight tenderness on pressure over uterus; some tympanites; slight offensive discharge; continue injection bis die, and Mist.; a hot linseed poultice over abdomen.

14th.—Good night; cheerful face, less pallid; little head-

ache; tongue moist and clean; temp. 100·4°; pulse 96, soft, regular; less perspiration; less thirst, and feels very hungry: to have a little boiled fowl; very slight tenderness on pressure; no tympanites; discharge not offensive; bowels not relieved since; repeat enema; continue injections and Mist.

15th.—Rather restless night, and complains of headache; bowels not relieved; to have ℥ss Ol. Ric. statim; some thirst; temp. 100·7°, skin moist; pulse 103, very weak; tongue moist and clean; no pain on firm pressure over uterus; no discharge, feels very hungry; continue.

16th.—Bowels relieved by oil yesterday; had good night; is more cheerful, and feels better in every way; temp. 98°; pulse 88, weak, soft, regular; continue.

17th.—Good night, but is rather more feverish to-day, and complains of a troublesome cough; lungs normal; temp. 100°; pulse 96, small and weak. Ordered—

℞ Potas. Chlor., ʒij;
Sol. Morphiæ, ʒij;
Syrup. Tolu, ʒvj;
Tr. Cinchonæ, ʒiij;
Aq. Chlor. ad ʒvj.
℥j tertiis horis.

18th.—Much better; pulse and temperature normal; no pain anywhere, and no discharge.

From this date she improved steadily; the cough left her in three or four days, and I put her on Tr. Ferri ♏xv, and Quiniæ gr. j ter die, and she was up and about in another week.

I saw her on April 24th, and she was as strong and well as ever, and nursing her baby, the milk having returned; there had been consequently no catamenial period, the only thing she complained of was a pain in the left groin on walking quickly or overexerting herself.

Remarks.—I thought this case worth recording:

1st. From the comparative rarity of puerperal hæmorrhage at so remote a period without any previous unusual discharge.

2nd. To elicit the opinions of more experienced obstetricians as to the probable cause of so much febrile disturbance.

I may observe that this is the third case in which I have used perchloride lately in post-partum hæmorrhage; the other two recovered without a bad symptom except of course some hæmorrhagic febrile exacerbation for forty-eight or seventy-two hours after.

In this case I used the Liq. F. Perchlor., P.B., not the Fort. as recommended by Dr. Barnes, simply because I thought that a less powerful solution would suffice.

A CASE OF GENERAL DROPSY IN A FŒTUS WITH HYPERTROPHY OF THE PLACENTA.

By John Bassett, M.D.,
PROFESSOR OF MIDWIFERY IN THE QUEEN'S COLLEGE, BIRMINGHAM.

On the 1st of January, 1877, I was requested by Mr. W. T. Foster to assist him in a case of difficult parturition. On my arrival at the patient's residence about 7.30 p.m. I learned that symptoms of labour had been present during the greater part of the day, the pains became more frequent about 5 p.m., and then the membranes ruptured and allowed a considerable quantity of liquor amnii to escape. In about an hour from the passing of the waters the child's head was born. The labour then came to a standstill. Ergot was administered and the pains encouraged in other ways, but as no progress could be made my opinion was sought. The history showed that it was a third pregnancy. The first child was born alive, and is well at the present time. The second pregnancy ended prematurely with a dead child, occasioned by a fall. The present pregnancy has shown no peculiarity except that she is much larger than she has been before. The child was believed to have been alive shortly before the commencement of labour. Before proceeding to deliver I placed the patient under the influence of chloroform, and then made a careful examination of the

abdomen externally to ascertain if I could find any evidence of plurality or monstrosity. The result was negative, and no fœtal pulsation could be heard. The child's head had now been born an hour and a half, and, notwithstanding fair pains and manual help, it had made but little advance. The face was looking forward to the mother's left thigh as if it had been born in the third position. The child was now so wedged in the vagina that the hand could not be passed above the brim of the pelvis. To ascertain the cause of the delay, a blunt hook was passed into the axilla and firm and steady traction made. In a little time progress was effected and the shoulder passed through the os externum; after this the delivery was completed without much difficulty. The child, which was a mature one, was found to be the subject of general dropsy. The upper and lower extremities, the loins and general superficies, were swollen and hard; the abdomen was greatly distended with a straw-coloured albuminous fluid; a considerable quantity of liquor amnii escaped during the labour; the placenta was the largest I had ever seen, and weighed, when placed in the scale, three pounds and a half; it was extremely soft, friable, and flocculent, but had no appearance of morbid deposit in its structure. The peculiarity about it seemed its overgrowth and softness. It gave off a pound of fluid in twelve hours.

What the rational explanation is of this form of dropsy I am unable to say, as in a similar case the premature closure of the foramen ovale was regarded as a sufficient explanation. I submitted this fœtal heart to my friend Dr. Sawyer, who is an expert pathologist, and his report is that "the foramen ovale is elliptical in shape, with the axis placed vertically; it measures one fourth of an inch by one tenth of an inch; it is large enough to permit the passage of a considerable portion of blood. I should judge it to be normal in size; the ductus arteriosus is patent, and the heart does not present any structural peculiarity." From this report it seems that the cause of the dropsy is not in the fœtal circulation; indeed, had it been that a barrier had existed in the transmission of blood, some interference with the nutrition

and growth of the child would have been noticed. We may therefore turn to the placenta and regard its overgrowth as the starting-point of departure from health, and the dropsy as a sequence following upon this. These were the only morbid appearances. Overgrowth of the placenta is occasionally met with, and has been regarded as indicative of syphilis. Dropsy during pregnancy is usually associated with albuminuria. Careful inquiry has failed to find any evidence of syphilis, and during the labour the kidneys acted freely and the urine contained but a very slight trace of albumen. It seems therefore probable that this case may be placed in the category of those termed hydramnios, a condition the pathology of which is somewhat obscure.

Dr. John Williams said that what we knew of dropsy in the fœtus was acquired by the study of dropsy in the adult. In an adult uniform general anasarca was never the result of heart disease or central obstruction, but was always due to a blood condition usually associated with disease of the kidneys. The first effect of central obstruction in the adult was to cause œdema of the parts most distant from the heart—the extremities of the limbs. This was not due to gravitation, though gravitation favoured it. In the fœtus, according to the same law, the part first affected by obstruction in the heart was the placenta. The organ became œdematous. Thus, an obstruction to the flow through the placenta would arise, and in consequence of it general anasarca may occur in the fœtus. But this is not the only way in which general dropsy of the fœtus might and evidently does result from disease of the placenta. The liquor amnii at term contains but faint traces of urea or urinary salts, the fœtal urine at birth is equally poor in such constituents, and, indeed, in many instances urea cannot be detected. The kidneys also are small and undeveloped. The tubules are blocked up. All this points to the inactivity of the kidneys during fœtal life. We know that in the placenta an interchange of salts takes place between the blood of the mother and that of the fœtus. The placenta acts as a respiratory organ, and according to Bernard's observations it acts also as a hepatic organ, for he has found the cells of it charged with glycogen. As the kidneys appear to be almost inactive at this time it is not unreasonable to suppose that the placenta acts also as a renal organ, separating excrementitious products from the fœtal circulation. If this be

true œdema or thickening of the placental tissues would interfere with this excretory action and give rise to accumulation of excrementitious material in the fœtal blood, and prior to that fluid characters similar to those found in Bright's disease, and general anasarca as a consequence. Any disorder of the placenta interfering with its excretory functions might lead to this result. The view that such a blood state occurs not infrequently in the fœtus is favoured by the not uncommon occurrence of inflammation of the serous membranes during intra-uterine life. The condition of the serous membranes is not described in the paper. The placenta is said to have been hypertrophied; how much hypertrophy was present it is difficult to say, but it cannot have been much, for it is stated that during twelve hours after labour the placenta discharged a pound of fluid. This question of the excretory function of the placenta has an important bearing, moreover, on an interesting subject referred to in the paper, the albuminuria of pregnant women. This has been ascribed in many cases to obstruction to the return of blood from the kidneys caused by pressure of the enlarged uterus on the renal veins. Now, the renal veins are situated in a hollow, and there is a soft cushion of intestines between them and the uterus, and it would be difficult to imagine the organ pressing upon them. Moreover, in cases of large cysts of the ovary, where the abdomen is much larger than during pregnancy, we find no signs of pressure on the renal veins. Again, albuminuria is found so early as the fourth month of pregnancy, when it is impossible for the uterus to exercise the pressure referred to. Some other explanation is evidently necessary in these cases, and I believe it is to be found in the function of the placenta mentioned. The organ separates the excrementitious matter from the blood of the fœtus, discharges it into the blood of the mother, and this in addition to the work already imposed upon the maternal kidneys is too much for them, and albuminuria is the consequence; for it is quite possible that the ratio between the renal excretory power and the excrementitious matter in the blood of the mother may be such that the slight addition of excrement contributed by a fœtus may prove sufficient to destroy the balance.

Dr. Edis thought there was one point of practice in the case brought forward that demanded notice. When Dr. Bassett was called to see the patient, the head of the child had been born for more than an hour. Surely it could have been determined from the condition of the head whether the child was alive or dead, without first giving chloroform to the mother, examining the abdomen, and listening for the sounds of the fœtal heart. The better plan apparently would have been to have drawn down an arm, as was subsequently readily done, with the view of decomposing the

wedge, and so completing delivery at once, when the life or death of the child would at once have been apparent.

Dr. Roper remarked that when a child's head was born two hours before the trunk it might fairly be concluded that there was some abnormal condition of the fœtal body to cause this—as ascites, or some other abdominal or thoracic disease, or a malformation. When the fœtal body had been retained two hours after delivery of the head, it was scarcely possible that the child could be alive, and the indications of treatment pointed to the mother alone. He had recently seen a case of this kind. Head delivered two hours, body retained; no traction on the head could deliver the trunk. This was impacted from putrefactive swelling. A perforator was at once introduced into the thorax and through the diaphragm into the peritoneal cavity with a view of letting out any accumulation of fluid or gas of decomposition. The body was then easily delivered by the crotchet placed in the axilla.

The President regretted that no reference had been made to the researches of Simpson. New observations should be made and compared with those made before.

COMPLETE RUPTURE OF PERINEUM.

By Charles Robert Thompson.

Mrs. B—, æt. 22, primipara, at or near full term, sent for me at 4.30 a.m. On arrival I found pains regular, and at short intervals; os dilated; head coming into pelvis in first position; membranes entire.

I learnt that she had felt the movements of the child until six days ago, when she was fatigued by a long walk, and had not been well nor conscious of them since. A slight discharge had come on yesterday morning, and pains in the middle of the night, which had steadily increased.

I ruptured the membranes about 6 a.m.; the head advanced gently with each pain; the occiput soon protruded, and the perineum was not excessively stretched, although there was now a slight delay, as the chin did not extend

itself as readily as usual; and on passing a finger under the chin I found the neck swollen, hard, and full, up to the level of the chin, so that I doubted whether I had not a monstrosity to deal with. The head was completely born about 6.45, without the smallest injury to the perineum. I found the cuticle peeling off the face on the slightest touch, showing that the child had been dead some days.

A pain or two followed, without any advance, when suddenly the child's right hand was thrust out *through the mother's anus;* and, in a moment, with one long effort, the body was expelled; the forearm, lying on the chest, ploughing its way completely through the whole length of the perineum.

The child proved to be dropsical; the neck largely œdematous, the chest and abdomen distended, the scrotum full of serum. The cord also was œdematous and brittle, so that it broke short off with the least pressure, and I had to pass my hand into the vagina to remove the placenta, which lay detached in its upper part. The uterus contracted firmly, and my patient was not faint or ill in any way.

Finding that the torn parts came into good apposition, I inserted at once two thick silk sutures, passing them with a large curved needle as deeply as I could, one through the torn edges of the orifice of the bowel, and the other about two inches more forward. I cleansed the parts thoroughly, applied strips of lint steeped in carbolised oil, and tied the knees together, placed her on her side, enjoined the most complete quietude, and got a nurse who could draw off the water as often as required. The ordinary diet was used, with as little liquid as might be on account of the breasts, and no medicine was given.

She recovered without a bad symptom. On the third day I removed the stitches, as there was some irritation in their tracks, but the torn parts looked healthy. On the fifth day, the breasts being troublesome, an aperient was given; the first part of the motion was hard and lumpy, requiring some help from the nurse; but this was followed by liquid fæces, over which, the nurse assured me, she had perfect control;

nor did fæces or flatus, as far as we could ascertain, ever escape per vaginam.

In a fortnight she was on the sofa, her only inconvenience being a tender granulation at the edge of the perineum, which was touched with sulphate of copper until it healed. At the end of the month she took her place again in society, and soon after rejoined her husband.

Remarks.—I regret that I did not take a measurement of the child's thorax, the great dropsical distension of which was the main cause of the rupture; the hand, lying in the customary position on the chest, was thrust through the posterior wall of the vagina into the rectum, and then cut through the whole perineum. The case is probably unique. It is worth recording, as an encouragement to surgeons to endeavour to repair such injury at once with whatever instrument is at hand. I was fortunate in having some very stout silk and a large curved needle in my pocket case.

Dr. Hayes was in favour of the use of sutures in laceration of the perineum; he kept them in five days.

Dr. Bantock hoped the time was not far distant when there would be no doubt as to the propriety of operating immediately after the injury, and the results of this procedure were so entirely satisfactory that he was at a loss to account for the opposition. It made very little difference what material was used as regarded the final result, but the comfort of the patient was best consulted by the employment of a soft and pliable material, and he strongly recommended *silkworm gut* for the purpose of suture. It adapted itself admirably, and produced less irritation than any substance with which he was acquainted. He related a case in which a perineum that had been restored by the remote operation had given way in a subsequent confinement, and in which he had left the sutures (unintentionally) in for ten days, without producing the slightest blush along the whole perineum, and with the result of securing absolute union by first intention.

Dr. Wynn Williams used the first material at hand.

Dr. Murray mentioned a mode of treatment which he had first seen in Vienna, and which he had since used with the best results. This consisted in making a small incision on either side of the posterior vulval commissure (by knife or scissors) whenever the perineum seemed in danger of rupture. By this

means he had succeeded in saving a perineum which had already once given way and been reunited. The incisions needed no suture, and always healed very rapidly.

Dr. Edis thought that an important point in the treatment of rupture of the perineum was to ensure regular action of the bowels from the first, without allowing them to remain confined for a week or ten days, as was usually advised, and then trusting to some ignorant nurse to administer an enema, when the newly-healed tissue often gave way. The presence of a hardened mass of fæces, gradually accumulating, not only tended to increase the patient's discomfort, but also interfered with the healthy condition of the parts, and subsequently endangered the success of the operation. His usual practice was to operate within twelve hours, bringing the edges of the rupture together by means of stout silver sutures, passed very deeply and then twisted, the ends being covered with a piece of gutta percha, softened in hot water, to prevent any irritation. For the first day or two the bowels were allowed to act or not as desired; but if they had not acted by the third day, it was his practice to give a dose of castor oil, or some simple aperient, and afterwards solicit the daily evacuation of the contents of the rectum. As a rule, in cases of complete rupture through the sphincter, he thought the stitches should not be removed before the sixth or seventh day at earliest, until sufficient time had elapsed for the new tissue to become consolidated.

CASE OF MENINGOCELE COMPLICATING LABOUR.

By S. Wordsworth Poole, M.D., Sidcup.

On September 30th I was called to Mrs. Lee, a woman with a slightly contracted pelvis, whom I had delivered several times previously, either by version or forceps. I found the os well dilated, and the membranes projecting in a conical form, but no presentation.

I therefore gradually inserted the hand to explore, and came first upon the side of the head, then the funis and the arms.

It has for some years back been my usual practice in cases

of narrow brim to turn the child, having the long forceps ready to deliver the head, and I therefore let some of the waters escape and tried bipolar version.

The head, however, would not recede, and the hand was therefore fully introduced in order to seize a foot. I was surprised to feel a large bag of fluid, which was attached to the back of the head by a neck that allowed it to move freely about. As the tumour was not larger than the head it was at once clear that it would easily follow the delivery of the latter, and even if any difficulty occurred it could be lessened by simple puncture. Podalic version was therefore effected, and both child and cyst were extracted without difficulty.

It will be evident from the following description that it would have been impossible to deliver the head, vertex foremost, or even face foremost, until the cyst had been emptied.

The child was full-grown and well nourished, but it had a harelip and cleft palate on the left side, and the eyes were minute. Beyond this there was nothing abnormal. It made a low moaning noise, passed urine and meconium and lived two days, dying without convulsions. The autopsy was made by Dr. J. W. Bull and myself.

The cyst was irregular in form, consisting of three lobes, and measuring in circumference fourteen inches, that of the head round the temples being only thirteen. Its greatest length from the head was four and a half inches. During life the tumour was throughout translucent, as if it were filled with a transparent fluid, and the vessels of the pia mater were seen spread out on its inner surface. Pressure upon it had produced no visible effect upon the child.

The neck was an inch and a half in diameter, and sprang from an opening between the parietal bones which were separated, their edges being elevated and everted so as to form a squarish outlet, but approximated again so as to complete the anterior and posterior fontanelles. The other bones and sutures were quite normal. The hair covered the neck, but gradually disappeared as the tumour expanded. The inner membrane containing the vessels was easily sepa-

rated, and had a great resemblance to the spider's web in texture. The expansion also of the dura mater was readily dissected from the extension of the scalp. There was really but one cavity, but where each lobe joined its fellow there hung a membranous curtain like a very imperfect septum. A cerebral convolution projected just barely into the bony outlet.

The parietal bones removed, we found the brain filling the cranium, no fluid intervening. The sulci were fairly marked, bnt we could distinguish no cortical and medullary matter, the whole being of a pale buff colour with numerous sanguineous specks.

The protruding convolution belonged to the right hemisphere, and close to it was an opening through which the little finger could be passed down into the right lateral ventricle. This cavity was distended with fluid, and attached to its walls were some eight or ten cysts about the size of a pea containing fluid of the same appearance as that in the great cyst. They were easily removed entire, and seemed to grow as well from the choroid plexus as from the walls of the ventricle.

The left lateral ventricle was decidedly on a lower level than the right, but was of the normal shape and contained no cysts. It may be interesting to remark that the two malformations, the cleft palate and the meningocele, were on opposite sides, although it did not appear with which side the latter was connected until the brain was dissected.

There was no family history of deformity, and no evidence of a material cause. The fluid was fourteen ounces by measure, and of a light sherry colour, due to a slight admixture with blood which formed a sediment on standing. Sp. gr. 1008, a trace of albumen, no sugar, but a chloride which gave the yellow sodium flame with the blowpipe. Apparently, then, it was of the nature of the normal cerebro-spinal fluid, and it may be a question whether it merely accumulated in the cavity of the ventricle, or was generated in a cyst such as those little ones already described.

Had the child lived and an operation been required the

pedicle could have been easily ligatured without the cerebral matter being pressed upon, that is if it remained in the position we found it in.

CASE OF DOUBLE VAGINA AND UTERUS.

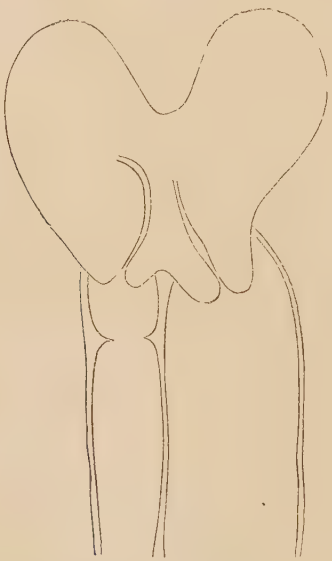
By Henry Gervis, M.D., F.R.C.P.

There being, so far as I can ascertain from the general index, but one case recorded in our 'Transactions' of double vagina in which, without reference to parturition, division of the septum was performed, I have thought that some particulars of a case recently under notice may not be without interest.

M. A—, æt. 27, was admitted into St. Thomas's on the 14th April, 1877. She had been married about four years. She had had no children, but shortly after her marriage she believed she had had an early miscarriage. Prior to her marriage the catamenia had been regular and attended with but moderate pain. Subsequently they had occurred every three weeks, often in considerable amount, and always with great pain. There was also, at times, very great dyspareunia. Through this, in addition to the dysmenorrhœa and menorrhagia, her general health had become a good deal affected, and she was weak and nervous.

On examination of the lower abdomen no enlargement was perceptible, but there was some tenderness in both ovarian regions. Internally the vagina was found to be divided into two tubes by a septum, which extended from the uterus above to the orifice of the vagina below. This septum was quite complete, and of a thickness varying from the one twelfth of an inch in its centre to the one eighth of an inch at its upper and lower ends. The two canals, however, thus constituted, were not of equal size; the left was

considerably larger than the right, and this difference in size explained, probably, what to the patient and her husband was a matter of much surprise—that intercourse was painful and difficult at some times, but not at others. In the right canal, moreover, at about an inch from its upper end, was a circular constriction barely admitting the tip of the finger. At the upper end of each vagina a cervix uteri was to be felt, and in the larger of the two it could be seen with the speculum. The left cervix was small and conical, and with a direction towards the left. At its apex was a minute os, admitting the uterine probe for a distance of about half an inch. The right cervix was much flatter, and with the finger alone it was very difficult to distinguish any os. The os was as small as on the left side, but the probe could be passed to a distance of about an inch and a half to two inches. On examination per rectum the two necks, the one much shorter than the other, were found to become blended toge-



ther for a space of about an inch, and then, again, a divergence of the two uterine bodies took place (see diagram).

Six days after her admission the catamenia appeared; the quantity was rather considerable, and it was noted that the amount which passed from the right vagina was distinctly in excess of that which escaped from the left. Pain was moderate.

On May 10th she was placed under chloroform in the lithotomy position, and I proceeded to divide the septum. To effect this I selected the galvano-cautery, with the double object of avoiding hæmorrhage during the operation, and lessening the risk of septic infection subsequently. The sides of the vagina being protected by retractors held in position by assistants, I passed a curved needle armed with stout silk through the septum, as near as possible to the uterus. To the silk was then attached the wire of the galvano-cautery, and this, in its turn, was drawn through, and then adjusted to the holder in connection with the battery in the usual way. The loop of wire thus constituted was gradually tightened and the septum divided. A small portion beyond the point of entrance of the wire was afterwards divided by the galvanic knife. There was not the slightest hæmorrhage. The vagina was finally plugged with pledgets of cotton wool soaked in glycerine. Her recovery was without a single unfavorable symptom.

On the 21st the catamenia appeared, and in quantity much less than previously.

On the 28th I examined the vagina with the speculum with the patient in lithotomy position. The ridge of septum on the roof and floor of the vagina had nearly healed throughout. At the extremity of the now full-sized vagina could be well seen the two uterine necks, each with its respective os, the left conical, and pointing towards the left; the right flatter, and with its os looking towards the right. On passing a probe into each os at the same time they at first converged, but did not meet. Into the left cervix the sound could not be made to pass much beyond half an inch. On the right side, however, the cervical canal after first passing towards the left made a turn to the right, entering into what presumably was the cavity of the body of the right-hand

uterus. While, therefore, the vagina on the left side was the larger, the uterus on the right side appeared the more developed of the two.

On June 11th the edges of the divided septum had completely healed, and except at the vaginal entrance, where its thickness had been greatest, the remains were scarcely to be distinguished from the rest of the vaginal wall. She was presented with the prospect, so far at least as the dyspareunia was concerned, of a complete cure, and so of relief also to her dysmenorrhœa and menorrhagia.

FOUR CASES OF REMOVAL OF LARGE UTERINE MYOMATA BY ABDOMINAL SECTION.

By Lawson Tait, F.R.C.S., &c.,
SURGEON TO THE BIRMINGHAM HOSPITAL FOR WOMEN.

I have now performed four operations of this nature, three of which have been in private practice, and one in the hospital. Of the four two have recovered, and although my whole experience is not large, yet it has been sufficiently successful to be of service, perhaps, in advancing this operation to its proper place as one of the recognised surgical proceedings. The results of M. Pean in the treatment of these cases have already justified us in the hope that it may yet become as successful as ovariotomy.

The first of my operations was performed in January, 1873, on account of recurrent intestinal obstruction due to a large myoma in a young woman (34). The case has already been published by the Royal Medical and Chirurgical Society, so that I need not further refer to it. The patient has continued in perfect health, and her uterus is now represented by a small tubercle, not larger than a pea, in the cicatrix. The vagina is elongated upwards in a funnel-shape. She

has had no menstrual symptoms of any kind since her recovery, and as she is not married I cannot say if any further physiological change has been induced.

Mrs. W—, æt. 45, was sent to me in August, 1875, by Dr. Eshelby, of Stonehouse, Gloucester, on account of a large and rapidly increasing abdominal tumour. It had been discovered only four months before I saw her, yet it reached almost to the xiphoid cartilage. It was soft but not fluctuating, was pediculated and moved freely. There was a considerable amount of ascitic fluid, so that the nature of the tumour was by no means clear, beyond the fact that it probably had a uterine origin and was solid.

On September 11th I opened the abdomen and found that it was a large soft myoma of the fundus uteri. The incision required for its removal was eight inches long, and no complications were met with save a few omental adhesions. A clamp was secured round the pedicle, but owing to its thickness the clamp required to be the largest size of Mr. Wells' pattern. The part embraced was probably about an inch and a half from the os uteri.

The operation was performed in the hospital, and I was assisted by my colleagues Mr. Bracey, Mr. Jordan, and Dr. Savage.

The patient did well for the first two days, but on the morning of the 13th pain and distension came on, followed by sickness, and she died early in the morning of the 16th. No post-mortem was allowed. The examination of the tumour removed showed that it was a soft œdematous myoma of the fundus, and that the cavity of the uterus entered it in a tortuous direction for nearly six inches.

Miss P—, æt. 41, was sent to me by Dr. Bennett, of Builth, Brecon, in July, 1875; she was the subject of a large multiple myoma of the uterus, very freely moveable. It reached as far as two inches above the umbilicus, with two branching clusters of nodules running out to either flank. The tumour gave her only occasional distress by pressure on the intestines, and as the metrorrhagia was not excessive, I

strongly urged her to leave it alone. She, however, was extremely anxious that it should be removed at all hazards, and returned to me in May, 1876, determined to have it removed. I acceded to her request after a consultation with Mr. C. J. Bracey, and on May 19th removed the tumour. It was multiple and nodulated and quite free from adhesions. The incision required was six inches long, and the pedicle was secured by a large-sized calliper clamp. The tumour weighed nine pounds, and I found that only about half an inch of the uterus was removed along with the tumour.

She had no bad symptoms till fifty hours after the operation, but distension and vomiting then set in and she died on the 22nd.

Mrs. A. L— was sent to me in June, 1875, by Dr. A. P. Evans, of West Bromwich. She had a large, smooth, ovoid tumour, soft and having a most deceptive sense of fluctuation. The uterus admitted the sound to only the normal extent. The tumour moved freely, taking the uterus with it; no large vessels could be discovered in the roof of the vagina, and altogether the diagnosis lay very doubtfully between an ovarian cyst with gluey contents and a soft myoma. My advice to her was to wait, and see me again at the end of eight or ten months. I did not see her, however, again till November, 1876, by which time the abdominal girth had increased only two inches, and the other conditions were just as before.

The next time I saw her was on July 10th, 1877, when she informed me that she had consulted another surgeon, who had made an attempt to tap her some weeks before. The result was that the tumour had increased very rapidly in size, so that she was four inches more round the waist than at the previous visit, and every other measurement had correspondingly increased. She was very anxious to have the tumour removed, as her health was becoming seriously affected, and I performed the operation on August 4th, assisted by Mr. Lloyd Owen and Dr. Evans. I had almost come to the conclusion that the tumour was a uterine myoma,

but had not done so conclusively. Even after I had the tumour laid bare and my hand in the pelvis I could not say what it actually was, and it was only after I had it out of the abdomen and found the ovaries attached at the base of the mass that I became positive as to its nature. Large sinuses coursed over it in various directions, and these were so thin that one of them was torn by handling. An incision of fourteen inches was made before the tumour could be extracted, and several adhesions which bled profusely from both surfaces had to be broken through and cauterised. When turned out the huge mass had a pedicle about the thickness of the wrist, and this I secured in a large-sized calliper clamp. The gush of blood from the tumour when it was cut off from the clamp was the most striking thing of the kind I have ever seen, but my assistants were so nimble that none of it entered the abdomen. I found that I had clamped the uterus just below the body, and that the tumour was attached to but did not involve the fundus. The ovaries were attached to the base of the tumour, as were also the Fallopian tubes. All this, of course, was made out by subsequent dissection. Eleven deep and two superficial sutures were required to close the wound. The operation seemed to me the most serious thing of the kind I had ever undertaken, and the tumour removed is, so far as I know, the largest yet removed from the uterus, as it weighed immediately after the operation twenty pounds and four ounces.

I need not give a detailed account of her progress towards recovery, for it was uninterrupted and free from any symptoms of an anxious kind. The highest temperature recorded was 38·4°, and this was on the twelfth day after the operation and one day after the clamp came off. The wound was quite healed and she went home within a month after the operation.

I saw her on the 27th of September, and found that the uterus was represented by a small button, apparently not more than half an inch in diameter, lodged in the cicatrix.

The nature of the tumour is that of an ordinary soft œdematous myoma, the œdema comprising at least one fifth

of its mass, for it has shrunk to that extent since its immersion in spirit.

Dr. Fancourt Barnes said that he had assisted Dr. Braxton Hicks and Dr. Robert Barnes at a case in which a fibroid uterus was removed by laparotomy in consequence of a large fibroid tumour which had grown all round it. The tumour had completely filled up the pelvic cavity, and had become wedged under the sacral promontory. The patient was in such agony from the pressure that the operation of laparotomy was resorted to. It was very difficult to raise the tumour out of the pelvis. On a section being made the uterus was found to be in the middle of the tumour, and to contain an embryo of about eight weeks. The posterior portion of the tumour had become gangrenous from the pressure against the sacrum. The patient died thirty-six hours after the operation.

Dr. Playfair said that in two of the patients operated upon the diagnosis was doubtful. In one it was done against Mr. Tait's advice. Why was it done? The course of fibroid is not usually fatal, and abdominal section should not be undertaken for its removal unless life was endangered.

Dr. Routh said he would dwell upon two points especially brought out by this paper. First, much would depend upon the manner in which the point of union between the uterus and tumour, whether by pedicle long or short, was secured. The clamp alone, he thought, was not the best way, especially if it was very thick, as it might slip. In his Lettsomian lectures on fibroid tumours he had called attention to the circumstance. Even a ligature might slip, as it did in some cases then related, and death followed from hæmorrhage. If a ligature was used it should transfix the pedicle so that it could not slip. Hæmorrhage both *during* and *after* operation was much more likely to occur in these cases than in ovariotomy, and from the pedicle, for which reason, perhaps, the actual cautery might be sometimes preferable even to ligature. Then, secondly, he concurred in all that had fallen from Dr. Playfair about the inexpediency of operating by gastrotomy in those cases where the tumour was small notwithstanding the strong desire of the patient. He thought that only in those cases where the tumour was so large as to interfere with any vital functions, or producing so much pain and discomfort as to make life burdensome, or preventing a patient from doing anything, would it be justifiable to operate. The same general rules held good in cases of extirpation of a fibroid uterus itself, especially where in these cases frightful hæmorrhage occurred. He had at present under observation two such cases, in which latter he might operate. One was a

beautiful singer, but her uterus was considerably larger than a woman's at the full period of gestation. Her losses and almost continuous flow of blood rendered her not only an object to look at, but precluded all profitable employment. The mere existence, however, of a largeish tumour in the belly did not give much trouble if *extra uterine* and free. Such cases he had sometimes greatly benefited by the continuous electrical current and other remedial measures; for in these cases heavy losses of blood were very uncommon at the catamenial periods. Time and the menopause might alone bring about a cure. The tumour Mr. Tait had removed was a large one, but he believed that he (Dr. Routh) had removed one still larger, one which, before it was drained of the blood contained, weighed 22½ lbs.

Dr. Aveling remarked that an improvement in the treatment of the pedicle in these cases was required. The broad ligaments were difficult to deal with. He had removed an enlarged uterus weighing twenty-six pounds, but the patient did not recover.

Dr. Bantock said it was well known that women went about for years carrying very large fibroids, Hence the operation was very rarely called for, and was only justified by the urgency of the symptoms produced, and by the existence of certain conditions which rendered the operation feasible and with a possibility of success. The principal condition was the existence of a pedicle. When the fibroid degeneration invaded the body to any great extent, by so much the operation was contra-indicated. Through the kindness of Mr. Spencer Wells he had been privileged to witness a considerable number of these cases, and the existence of a pedicle was an invariable condition. The great difficulty was the treatment of the pedicle. He had seen it treated in a variety of ways. He had a strong feeling in favour of the ligature. The broad ligaments were readily secured by a series of ligatures by *transfixion*, and each ligature should loop into its neighbour like the links of a chain. The uterus should be secured in the same way. It was important to remember that the vessels of the uterus did not possess internal and muscular coats as in other parts of the body. Hence after the ligature had become slack, by cutting through the tissues, bleeding was apt to follow. On this account he regarded the drainage tube as a necessity; for it was a fact that, although patients sometimes died directly from hæmorrhage due to the slipping of the ligature (an occurrence which is very apt to happen when enclosing uterine tissue) many died from septic change in the effused blood. In obviating this the drainage tube would be found of the greatest service.

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